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**FIGURE 1329**

CCAGCCTCGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTTCCTCCCCTCTCAGTAGCACGGAGTCCGAATTAA  
TTGGATTTTCATTCACTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTTCATTGACACTAAGAG  
CCAGCGCTGCAGCTGGTGCAGAGAGAACCTCCGGCTTTGACTTCTGTCTCGTCTGCCCCAAGGCCGCTAGCCTCG  
GCTTGGGAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGCACGTTTCGCGCGCGGTGCGTCCGCCATTGCCTG  
CCCCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCC**ATG**ATAGATACGCTCAGACCCGTG  
CCCTTCGCGTTCGGAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGG  
CTGCTGCTGATGGAATGCCGGCCGAGGAGCTATACGAGTCGTGCGCACATCGAGTCGGCCATCAACGTGGCCATC  
CCGGGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGC GCGCGCTCTTCACGCGCGGCGAGGACCGG  
GACCGCTTCACCCGGCGCTGTGGCACCGACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAAT  
ACGGGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAA  
GATGAAGCCCCGGGGCAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACT  
GTGGCTTACCTTATGCAGAAGCTCAATCTGTGATGAACGATGCCTATGACATTGTCAAAATGAAAAAATCCAAC  
ATATCCCCTAACCTCAACTTCATGGGTGAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGAC  
AACAGGGTTCCAGCACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAA  
TCTACG**TGA**AAGACCCACACCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAG  
CTGGGCTGCTTTCTTTGTGTGTGGCCCCAGGTGTCAAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAG  
TGCGGAATTGGTTAATACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACA  
GGCAGTAGGTTTGCTCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTTCAGGACTTCCAGGCGCA  
TAGGGTAGAACCAAATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCCTTTTGCATCTGG  
AACTGACTATATAATTGTCTTCAAGTGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTACGC  
TCTGTATTTGTGGTATCAGTGTGGAAAAGAGAAATCTGATACTCCATTTGGATTATTGTAAATATTTGATCTTG  
AATCACTTGACAGTGTGTTGTTGAATTGTGTTTGTCTTTTCTTTGATGGGCTTAAAGAAATTATCCAAAGGGA  
GAAAGAGCAGTATGCCACTTCTTAAACAGAACAAAACAAAAAAGAAATTGTGCTCTGTTGTAATCCAAAGGG  
GAGATTTGCAGCATGCTTGACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTA  
TGGCGAAGTCTTTAGTCTTTTTTCATGTATTTTCTCATGATTTTTTCTCTTTATGTAGTTTGAGTATGCCTTACC  
TTTGTAATATTTTTGCTTGTGTTGTGCGAAAGGGGATAATCTGGGAAAGACACCAAATCATGGGCTCACTTTAA  
AA

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**FIGURE 1330**

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA  
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESLLGLLLKKLKDEGCRAFYLEDARGKNCGVLVHCLAG  
ISRSVTVTVAYLMQKLNLMSMNDAYDIVKMKKSNI SPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQN  
VYQVDSLQST

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**FIGURE 1331**

GTGACAACCGGAAGCGGAAGTGAAAATGGGTGTCCCTGCTGCCTCTTAGCAACAAGAGGGGTCAAGTGACACAAC  
CAGCTGACTCCCGTAGAGGAAGACACTGTGGAGGCCAGTTCTGGAGCTATTGCAGCCTCGGTTGCCCGGCCGGGG  
ACCCGAGCCGAAAAGTTATCGTCAGAAATGTCGGGGCAAAGACCGAATTGAAATCTTTCCCTCGCGAATGGCACAGA  
CCATCATGAAGGCTCGTTTTAAAGGGAGCACAGACAGGTCGAAACCTCCTGAAGAAAAAATCTGATGCCTTAACTC  
TTCGATTTTCGACAGATCCTAAAGAAGATAATAGAGACTAAAATGTTGATGGGCGAAGTGATGAGAGAAGCTGCCT  
TTTCACTAGCTGAAGCCAAGTTCACAGCAGGTGACTTCAGCACTACAGTTATCCAAAATGTCAATAAAGCGCAAG  
TGAAGATTTCGAGCGAAGAAAAGATAATGTAGCAGGTGTTACTTTGCCAGTATTTGAACATTACCATGAAGGAAGCTG  
ACAGTTATGAACTGACTGGTTTAGCCAGAGGTGGGGAACAGTTGGCTAAATTAAAGAGGAATTATGCCAAAGCAG  
TGGAACACTGTTGGAAGCTAGCTTCTCTGCAGACTTCTTTTGTACTTTGGATGAAGCTATTAAGATAACCAACA  
GGCGTGTAATGCCATTGAACATGTCATCATTTCCCGGATTGAACGTACTCTTGCTTATATCATCACAGAGCTGG  
ATGAGAGAGAGCGAGAAGAGTTCTATAGGTTAAAGAAAATACAAGAGAAGAAAAAGATTCTAAAGGAAAAATCTG  
AGAAGGACTTGGAGCAAAGGAGAGCAGCTGGAGAGGTGTTGGAGCCTGCTAATCTTCTGGCTGAAGAGAAGGACG  
AGGATCTTCTATTTGAATTAATCTTTTCTGTTCTGTTCTTTGAGAAACCCTAACACTGGCTTCATTTTAATTAC  
AGTGTGTAGGTTTGATTGTGTGGCTATTTATTTTTTGGCCTAAGAATTTCACTGGTTGTAAAAATTACCTAGAT  
GTCTATTTATGGGATTACTTTTGCAGAATCATAATTTAGCAACCATTATCATGGATGAAAGAGATCTGTAAAC  
CTGCCCAGGAACCTTACAGAATTTACTTTGCAGAAGCGTTATCATACTCCATTTACATCTGTGTTACACGTGATCT  
GCTTACCAAGCATATTAGGAAATACCTCTTAGGAAGCATTAGCGGTCTCAGGCCAATTACTGTGGAGCAGCTTTC  
ATTCTTACCCACTTGCAAACCTTGCGCTGTTGTCTGAGATTGCTGCAGCCATTCTTGTTACCATGGTACTTCTC  
AACTTTGTGAAAACCTGCACTTTTCTTGCATGACAGGTTCTGTCTTGTCTGTCATGGGAGCCATTCTGCCAA  
TTTAAATGCGACTGTGGTATAAACAGTAAATGATTTAAAAGTAAGTCATTCCGTTTTTATTAATTTACTGTAA  
GTCATGTTCTCATGCTCAGATCAGTAGTGTGAGCCAGAGCTTTCTCTGCAGACATGTAGGAAGTGGGTAGCTATT  
TTTCCCACTCCATGTATTAGAGTTTTACAAAAAGGCTTACTTTTGTGACAACTGTTGCATTTTGGGGTACTAATA  
AATGATTGCCGATGAGTTAAAAAA

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**FIGURE 1332**

MSGKDRIEIFPSRMAQTIMKARLKGAQTGRNLLKKKSDALTFRQILKKIETKMLMGEVMREAAFSLA  
EAKFTAGDFSTTVIQNVNKAQVKIRAKKDNVAGVTLPVFEHYHEGTDSELTGLARGGEQLAKLK  
RNYAKAVELLVELASLQTSFVTLDEAIKITNRRVNAIEHVIIPIERTLAYIITELDERERE  
EFYRLKKIQEKKKILKEKSEKDLEQRRAGEVLEPANLLAEKDEDLLFE



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**FIGURE 1333**

GGGGAGAGAGTGGGGACGTCCGGCTTCGGAGCGGGAGTGTTTCGTTGTGCCAGCGACTAAAAAGAGAATTAAAT**AT**  
**G**GGTGATGTTGAGAAAGGCAAGAAGATTTTTATTATGAAGTGTTCCAGTACCACACCGTTGAAAAGGGAGGCAA  
GCACAAGACTGGGCCAAATCTCCATGGTCTCTTTGGGCGGAAGACAGGTCAGGCCCTGGTACTCTTACACAGC  
CGCCAATAAGAACAAAGGCATCATCTGGGGAGAGGATACACTGATGGAGTATTTGGAGAAATCCCAAGAAGTACAT  
CCCTGGAACAAAAATGATCTTTGTCGGCATTAGAAGAAGGAAGAAAGGGCAGACTTAATAGCTTATCTCAAAAA  
AGCTACTAATGAG**TAA**TAATTGGCCACTGCCTTATTTATTACAAAACAGAAATGTCTCATGACTTTTTTATGTGT  
ACCATCCTTTAATAGATCTCATAACCCAGAATTCAGATCATGAATGACTGACAGAATATTTTGTGGGCAGTCCT  
GATTTAAACTAAGACTGGCTTGTGGTTAAATGAATATGTTTCAGTTTTTGAATTTTAATAGTAACTCCAATTCAG  
TAAATGGTATCACTGTTTACCCCTTTTAAAGATATGATTAGACTTCGTTAGTAATGTTCAACTTTTCACAAAGAT  
GGTGAGTGCCATCTTAAACTTACTGGAGATTGGTTTTATATTTAGATTTATATAACTGGTTATGTGAATATATT  
TAAATACTGGGGAAATTGCTTCACTGTCTTAGAACCAAGCAAGATTCACCTGTGTTTTGTGTTTCATGTTCAATTTG  
CCTCTTAAAGGCAAGGGTTGAAGATAAATAAGGTAGCAATGTCTATAGTTTTGGCCTTAAGTATGCCAATCTAAT  
TATAATTCCTGTATTTAAATGGTTTCTTTTACTTATTGAAAGGCATTTTAGTGTGGTTTATGTGTAATATTAA  
AGATTATTCAACACCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1334**

MGDVEKGKKIFIMKCSQYHTVEKGGKHKTGPNLHGLFGRKTGQAPGYSYTAANKNKGIIWGEDTLMEYLENPKKY  
IPGTMIFVGIKKKEERADLIAYLKATNE

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**FIGURE 1335**

GGCACGAGGCCTAAGAGTTCTCTGCTGTACGACTGCACTCCCGCACCCCTCCCCTAAATCCCCCTCTTCGGCCT  
GTTTACCTTTTAACTTGGCTTCGTTGCACGTTTGTGTGTGTGTGTGTGCTCTTCGCAGCCTCTTGAGCGTCTTTT  
GTACTTAATTCTTACACTGTGGACGCTCTCTCGCGCCCGCCATCCCCGACCCCTCTGATCTCCGATCCTTGACG  
ATGTCTAGCCTGCATTGATTGGCCCTTTTCCCTGGGTATGGCAGATCTATTGCTTGATGATCCTCTCCCCCAAG  
AATTCTAACACAGGAGCTGTCCTGAGGCTCTGGATGACTTTATTCTTCAAATGGCTTTACCCCTCCAGTAGCTCC  
AGGGACCCCTCCATTTTCCATATCCAGGAAAAATGTGATGCGCCACAGGTATCAGCGTCTGGATCGCCACTTCACGT  
TTAGCCACAAGTGACTCAGTGGAAGATCCAGAGTCAACAGAGGCTCGTCAGGAAGATGTCTACAGAAAAGGTAG  
ACCAAAAGGAGGAAGCTGGGGAAAAAGAGGTGTGCGGAGACCAGATCAAAGGACCGGACAAAGAGGAGGAACCAC  
CAGCTGCTGCATCCCATGGCCAGGGGTGGCGTCCAGGTGGCAGAGCAGCTAGGAACGCAAGGCCTGAACCTGGGG  
CCAGACACCCTGCTCTCCCGGCCATGGTCAACGACCCTCCAGTACCTGCCTTACTGTGGGCCCAGGAGGTGGGCC  
AAGTCTTGGCAGGCCGTGCCCCGAGGCTGCTGCTGCAGTTTGGGGTGTCTTCTGCACCATCCTCCTTTTGCTCT  
GGGTGTCTGTCTTCTCTATGGCTCCTTCTACTATTCTATATGCCGACAGTCAGCCACCTCAGCCCTGTGCATT  
TCTACTACAGGACCGACTGTGATTCCCTCCACCACCTCACTCTGCTCCTTCCCTGTTGCCAATGTCTCGCTGACTA  
AGGGTGGACGTGATCGGGTGTGATGTATGGACAGCCGTATCGTGTTACCTTAGAGCTTGAGCTGCCAGAGTCCC  
CTGTGAATCAAGATTTGGGCATGTTCTTGGTCACCATTTCTGCTACACCAGAGGTGGCCGAATCATCTCCACTT  
CTTCGCGTTCGGTGATGCTGCATTACCGCTCAGACCTGCTCCAGATGCTGGACACACTGGTCTTCTCTAGCCTCC  
TGCTATTTGGCTTTGCAGAGCAGAAGCAGCTGCTGGAGGTGGAACCTCTACGCAGACTATAGAGAGAACTCGTACG  
TGCCGACCACTGGAGCGATCATTGAGATCCACAGCAAGCGCATCCAGCTGTATGGAGCCTACCTCCGCATCCACG  
CGCACTTCACTGGGCTCAGATACCTGCTATACAACCTTCCCGATGACCTGCGCCTTCATAGGTGTTGCCAGCAACT  
TCACCTTCTCAGCGTCATCGTGCTCTTCAGCTACATGCAGTGGGTGTGGGGGGGCATCTGGCCCCGACACCGCT  
TCTCTTTGCAGGTTAACATCCGAAAAAGAGACAATTCCCGGAAGGAAGTCCAACGAAGGATCTCTGCTCATCAGC  
CAGGTGCAGGGCCTGAAGGCCAGGAGGAGTCAACTCCGCAATCAGATGTTACAGAGGATGGTGAGAGCCCTGAAG  
ATCCCTCAGGGACAGAGGGTCAGCTGTCCGAGGAGGAGAAACCAGATCAGCAGCCCCTGAGCGGAGAAGAGGAGC  
TAGAGCCTGAGGCCAGTGATGGTTTCAGGCTCCTGGGAAGATGCAGCTTTGCTGACGGAGGCCAACCTGCCTGCTC  
CTGCTCCTGCTTCTGCTTCTGCCCCCTGTCTTAGAGACTCTGGGCAGCTCTGAACCTGCTGGGGGTGCTCTCCGAC  
AGCGCCCCACCTGCTCTAGTTCCTGAAGAAAAAGGGGCAGACTCCTCACATTCCAGCACTTTCCCACCTGACTCCT  
CTCCCCTCGTTTTTCTTCAATAAACTATTTTGTGTGCTCAGCTTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1336**

MSTEKVDQKEEAGEKEVCGDQIKGPDKEEEFPAAASHGQGWRPGGRAARNARPEPGARHPALPAMVNDPPVPALL  
WAQEVGQVLAGRARRLLLQFGVLFCTILLLLWVSFLYGSFYYSYMP TVSHLSPVHFYYRTDCDSSTTSLCSFPV  
ANVSLTKGGRDRVLMYGQPYRVTLLELPESPVNQDLGMFLVTISCYTRGGRIISTSSRSVMLHYRSDLLQMLDT  
LVFSSLLLFGFAEQQLLEVELYADYRENSYVPTTGAIIEIHSKRIQLYGAYLRIHAHFTGLRYLLYNFPMTCF  
IGVASNFTFLSVIVLFSYMQVWGGIWPRHRFSLQVNIRKRDNSRKEVQRRISAHQPGAGPEGQEESTPQSDVTE  
DGESPEDPSGTEGQLSEEEKPDQQPLSGEEELEPEASDGSGSWEDAALLTEANLPAPAPASASAPVLETLSSEP  
AGGALRQRPTCSSS

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**FIGURE 1337A**

AAATCCCCCAAGTTCTCATGATCCTTGCTTCCCTTTCCAGTCACCCTTGGTGCCCTGTACTTCACTGTGGTCTCTG  
AACTGAAGAGCTGTGTTTTTCAGGAAGACTTGGCCAGGCCGTGTTCCGTGTCTCTGGATTCAAGTCCCAGGAGTC  
CTGACCAGAGAGCAGGCATCAGTGTTTTCTGACCGAAGTGCTCATTTTCTGACA**ATCG**AAATGGAACAAGAAAA  
AATGACCATGAATAAGGAATTGAGTCCAGACGCGGCTGCTTACTGCTGCTCGGCCTGCCACGGCGATGAGACCTG  
GAGTTACAACCACCCCATCCGGGGCCGGGCCAAGTCTCGCAGCCTGTCTGCCTCGCCCCGCCCTGGGGAGCACCAA  
GGAGTTCAGGAGGACACGCTCTCTTCATGGGCCATGCCCGGTGACCACTTTTGGACCAAAGGCCTGTGTGCTGCA  
GAACCCCCAGACCATCATAGCCACTCCTTTGTCACTCGCATCTCAGCTGCTGCCTTCACCAGCCGTCACTCACTC  
GGGCCAGGGCGGGGTACCGGACAGGTGCATGTTCTGCCTCAGCCCTCAGACCAGGGCGTACTCAGTGGTCCCCG  
AGCTGCCCCGAGGCCAGACAGCCCCGAGGAGGAAGCGGTGACCCAGGAAGAGGTCGAGGCGCTGGTTTGTGGTCA  
CACACAGCGGTGGGTGCCTGGGCCGGTGTACGACGCCGTGCTGGTGGCTCTGGCTGGGCTCAGCTGAGCCTCAG  
GGCTGGAATGGGTGTAGGCCAGGCCACTGGGCACATTCAGGACCCCGCGAGCCAGCGGCTGACGTGGAACAAGTC  
CCCAAAGAGCGTCTTTGTTCATCAAGAAGATGAGAGATGCCAGCCTACTGCAGCCGTTCAAGGAGCTCTGCACGCA  
CCTCATGGAGGCACGCGGGGAGGGGGGAAGGGGGCCTGGGGTGCACATGGAGTTGGGGGGGCCCTCCATCCACAT  
CACCGCCCCGAGGGTGGGGTCTGCAGGTGGAATGAGCAGGTTGGCACTTTGCTTCCAGGAGAACATGATCGTGTA  
TGTGGAAAAGAAAGTGCTAGAAGACCCTGCCATCGCCAGCGATGAAAGCTTTGGGGCAGTGAAGAAGAAATTCTG  
TACCTTTTCGAGAAGATTATGATGACATTTCCAATCAGATAGACTTCATCATCTGCCTGGGGGGAGACGGGACGCT  
GCTGTACGCTTCTCTGCTTTTTCCAGGGCAGCGTCCCTCCGGTCATGGCCTTCCACCTGGGCTCCCTGGGCTTCCT  
GACCCCATTCAGCTTTGAGAACTTTAGTCCCAAGTTACTCAGGTGATAGAGGGGAACGCAGCTGTTGTTCTCCG  
GAGTCGGCTGAAGGTGAGGTGGTGAAGGAGCTCCGGGGGAAGAAGACGGCCGTGCACAATGGGCTGGGTGAGAA  
CGGCTCGCAGGCTGCAGGCCTGGACATGGATGTGCGGAAGCAGGCCATGCAGTACCAGGTCTGAATGAGGTGGT  
GATTGACAGAGGCCCTCCTCCTACCTGTCCAATGTGGATGTCTACCTGGACGGACACCTCATCACCACGGTGCA  
GGGCGACGGAGTGATCGTGTCCACCCCGACGGGCAGCACGGCGTATGCGGCCGCGGCCGGGGCCTCCATGATCCA  
CCCCAACGTGCCGGCCATCATGATCACGCCCATCTGCCCCACTCGCTGTCTCTCCGGCCCATCGTGGTCCCCGC  
AGTCGAGCTGAAGATCATGCTGTACCTGAAGCAAGGAACACAGCATGGGTGTCTTTGATGGACGGAAGAGACA  
AGAGATCCGCCATGGAGACAGCATCAGCATCACTACCTCATGCTACCCGCTCCCCTCCATCTGTGTGCGGGACCC  
CGTGAGCGACTGGTTTGAGAGCCTCGCCCAGTGCTTGAACGTCCGGAAGAAGCAAGCCCACTTCGAGGA  
GGAGGAGGAGGAGGAGGAGGAGGGCT**TAGGT**TCAAGCCCCCTATCCAGGCCCGAATCCTTCCGCTGCCCTCCAAGCGC  
CCTCTGGGGACAGACCAATCTGCGTGTGTCTGTGACCGCCTGTATCAGTGGCACGGCCACTTCCTTTCTGTAGC  
TGGGTTAGAGCCTGGGTCTGCCTTTTGTCCAGATCAGCTGTTTTTTTTAAATCTCTGACTTTTTTTGCATTTCTA  
AAGAAGCGTGAGAAATGGGCTGGGAGTGCTTCTGTCTGCTGACACCCCGCGGTGGGTCCCTGGAGCGCGGCCTC  
CAGCTGCCGCAATTTCCATGCCAGGATATTTTTCCGCAAATCAGTCGGTTGAAATTCAGAGGAGTCAGAATGACT  
CGACCTGTCTTCAATGTTGATAATAAATGTCTCAGCCAAAAACCTTCCTTGAGCTGCCATGCTTTTCCCCTTGA  
CCTGCACCTCTTCCCCTAAATTTCTGCAGGGAAGCCCCCTGGCGGAGGCGCCATTGAAAGCATGGTCTTGCCAGT  
GGCTGGCAAGGCGGTTTTGTTCTGCTCAGTTTCTGGAGAGGTTGGATGCGTCCCCTGCCATCCAGCCCTCCCCG  
CTTGAGGCCAGCACTGAGTCTGGGACACTCAGCGGGAAGGGGGCTGGCATCGCCACGGACCCACACATTCCTCAC  
GTAGCTTCTGCTCCCAGGAAGGTAGTTTAAATCCTGTATATACTTTTTAGAGACTCTTTTAACTTTCTGAAGTG  
CTGATGTACATACTTTCTCGTACACACTTTTGTGAAGATTTCAAGGGGAAGGGAGTTGTCTGCCATTCAATGTTT  
ACATTTATGTTCTGCAAGACGCTGTCTCAGGGACCATTAGGGGACCATTCGTTCAGTGCGATCCTGATGGTCC  
GGGAGATGAGGGTTTCCGGGGCTAGTGATCGTGATCCCTTTTATTTGCAACTGTAATGAGAATTTTTACACTAA  
CACAGCGAGGGACTCAACACGCTGATTCTCCTCCTGCCTCTCCCGTGAGTCTCCAGCCTGCCAGCACCAGCAGC  
TGTGGAGCACGTGGATGTGCTTACCCCGCGCCCGCGCTCTCCACGGGCACAGGTGTGTGGAGGCCGTGGTCCG  
ACCCTGGTGTCTGTTACTGCTGCCGGGTGTCTTTTTTTTGGAGTAACGTCTCTCTGAGTTTTTGCACACGAAGT  
TGCCCTCATCTGCTGGAGATCGATAAGGAAGGCACAAGACGTTCTCCTCTGCCCGTGAGGAGCTTCCCGCAGCCG  
CCTGGCCCAGCCTGGGCACGTTCTCCGAGGCATGTGTCTCCCTGCTCACCCTCGTCTGGGCACCTCAGCATCTGT  
GGACTTGAGCGTCCAAAAACCCCTGAGTGTGATTCTGGGCAGCCGGCCTGGCTTGAAGTCCGCCATGACCCTGGGC  
ACAGGGGAAGCCAGCCGTGGGCTTAGGAGAGAGGGACCAGCGCCAGCGTTAGGGCTGGAAGACGGCAGTGTTT  
AGAATTCCAGCCGCTCATCTGAACACAGAAGGTGTGAAGTACCTCTAAAGCAGCGTGAGATGGGAATGATCTAG  
AAAACCTTTGGATTTTTGAAGTAAATTTTAAATGTTTCATATTAATTTCTTGAATGTATTAAATGTATTGAAAG

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**FIGURE 1337B**

CCTTATTACGCTTTTCAGATCCTTTCAATAAACAAGACTTGTAGAAAATAAAAAAAAAAAAAAAAAAAAAA  
A

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**FIGURE 1338**

MEMEQEKMTMNKELSPDAAAYCCSACHGDETWSYNHPIRGRAKSRSLSASPALGSTKEFRRTSLHGPCPVTTFG  
PKACVLQNPQTIIATPLSLASQLLPSPAVSHSGQGQGVGTGQVHVLPQPSDQGVLSGPRAARGQTAPQEEAVTQEEV  
EALVCGHTQRWVPGPVYDAAAGGSGWAQLSLRAGMGVGGATGHIQDPASQRLTWNKSPKSVLVIKMRDASLLQP  
FKELCTHLMEARGAGGKGAWGAHGVGGASIHITAPRVGSAGGMSRLALCFQENMIVYVEKKVLEDPAIASDESFG  
AVKKKFCTFREDYDDISNQIDFIICLGGDGTLTYASSLFQGSVPPVMAFHLGSLGFLTPFSFENFQSQVTQVIEG  
NAAVVLRSRLKVRVVKELRGKKTAVHNGLGENGSAAGLDMDVGKQAMQYQVLNEVVIDRGPSYLSNVDVYLDG  
HLITTVQGDGVIVSTPTGSTAYAAAAGASMIHPNVPAIMITPICPHSLSFRPIVVPVELKIMLSPEARNTAWVS  
FDGRKRQEIRHGDSISITTSCYPLPSICVRDPVSDWFESLAQCLHWNVRKKQAHFEeeeeeeeeeg

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**FIGURE 1339**

GGCACGAGGGGAGCGCTTGGGAGTTAGGTTGTTTGCCGGCGTAGCGGCCAGCGCCTGAGCCCGCCGTTGATCTTCG  
CTGTGGC**ATG**GCGGACGAGGGGAAGTCGTACAGCGAACACGATGATGAACGCGTTAATTTCCCTCAAAAGAAAGAA  
GAAAGGCCGGGGTCCCTTCCGGTGGAATATGGTGAAGGAAACCGTAGGTCTGGAAGAGGCGGTTCTGGTATTTCG  
GTCTTCCCGCCTTGAGGAAGATGATGGAGATGTGGCAATGAGTGTGATGCCAGGATGGTCCCCGAGTACGATACAA  
CCCCATACCACCCGACCTAACCGTCGGGGTGATACTTGGCATGATCGAGATCGCATTTCATGTTACTGTGCGGAG  
AGACAGAGCTCCTCCAGAGAGAGGAGGGGGCTGGCACCAGCCAGGATGGGACCTCAAAGAACTGGTTCAAGATTAC  
AATTCCTTATGGCAGAAAGTATGACAAGGCATGGCTCCTGAGCATGATTCAGAGCAAGTGCAGTGTGCCCTTCAC  
CCCTATTGAGTTTCACATATGAGAATACACGGGCCAGTTCCTCGTTGAAGACGCCAGTACTGCCTCTGCATTGAA  
GGCTGTCAACTATAAGATTTTGGATCGGGAGAACCGAAGGATATCTATCATCATCAACTCTTCTGCTCCACCCCA  
CACTATACTGAATGAAGTGAAGCCAGAACAAGTAGAACAGCTAAAGCTGATCATGAGCAAACGATACGATGGCTC  
CCAACAAGCCCTTGACCTCAAAGGCCTCCGTTAGACCCAGATTTGGTGGCCAGAACATTGACGTTGTCTGAA  
TCGCAGAAGCTGTATGGCAGCTACCCTGAGGATCATTGAAGAGAACATCCCTGAGCTATTGTCTTGAAGTTGAG  
CAACAACAGGCTGTACAGGCTGGATGACATGTCTAGCATTGTTTGAAGGCACCCAACCTGAAGATCCTAAACCT  
TTCTGGAATGAATTGAAGTCTGAGCGGGAATTGGACAAGATAAAGGGGCTGAAGCTAGAAGAGCTCTGGCTCGA  
TGGAAGTCCCTGTGTGACACCTTCCGAGACCAGTCCACCTACATCAGCGCCATTTCGCGAACGATTTCCTCAAGTT  
ACTACGCTGGATGGCCATGAGCTACCCCCACCAATTGCCTTTGATGTTGAAGCCCCACGACGTTACCGCCCTG  
CAAGGGAAGCTATTTTGAACAGAAAAGTTGAAGAGTCTGGTCTTGCACTTCCTGCAACAGTACTATGCAATTTA  
CGACTCTGGAGACCGACAAGGGCTCCTGGATGCCTACCATGATGGGGCCTGCTGTTCCCTGAGCATTCCTTTTCAT  
TCCTCAGAACCCTGCCCGAAGCAGCTTAGCCGAGTATTTCAAGGATAGCAGAAATGTGAAGAAGCTTAAAGACCC  
TACCTTGCGGTTCCGGCTGCTGAAGCACACGCGTCTCAACGTTGTTGCCTTCCTCAATGAGTTGCCCAAAACCCA  
GCACGACGTCAATTCTTTCGTGGTAGACATAAGCGCCCAGACAAGCACATTGCTGTGTTTTTCTGTCAATGGAGT  
CTTCAAGGAAGTGGACGGAAGTCCCGGGATTCTTTGCGAGCCTTACCCGGACATTTCATTGCTGTTCTGCTAG  
CAATTCAGGGCTATGTATTGTAAATGATGAGCTATTTGTGCGGAATGCCAGTTCTGAAGAGATCCAAAGAGCCTT  
CGCTATGCCTGCACCCACGCTTCCCTCCAGCCCCGGTGCCACCCCTCTCTCCAGAGCAGCAGGAAATGTTGCAAGC  
ATTCTCTACCCAGTCTGGCATGAACCTCGAGTGGTCCCAGAAGTGCCTTCAGGACAACAAGTGGGACTACACCAG  
ATCTGCCCAGGCCTTCACTCATCTCAAGGCCAAGGGCGAGATCCCAGAAGTGGCATTTCATGAAG**TGAT**CGTAGTC  
ATGCCTCAGAAGCAGTCCCCCTGTAAATAGTCCCTTGGATATTACCGTCTGGTTGTGCTGCTGTCATCTCCTCCTG  
TCTGCCCCGAGGCCGCCCGTACTGTGACCGAGGGAGGGAGGGCTGCCTGATCCCTCTCCTCGCCTGCCTTCTG  
GAAGACTTCAGAAGATTGAGCCTCACTGGTGCCAGGAAGCCAAAGCTTACTTTGTAGAAGTACACTAACTACC  
CGAAGGACTTAGGTGCTTTGTGTACTTAACCCAGGACCTCCTTACTTTTTAATATAAAGAGTGATGTTGTAAAA  
AAAAAAAAAAAAA



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**FIGURE 1340**

MADEGKSYSEHDDERVNFPQRKKKGRGPFWRWYGEENRRSGRGGSGIRSSRLEEDDGDVAMSDAQDGPRVRYNPY  
TTRPNRRGDTWHDRDRIHVTVRRDRAPPERGGAGTSQDGTSKNWFKITIPYGRKYDKAWLLSMIQSKCSVPFTPI  
EFHYENTRAQFFVEDASTASALKAVNYKILDRENRRISIIINSSAPPHTILNELKPEQVEQLKLIMSKRYDGSQQ  
ALDLKGLRSDPDLVAQNIDVVLNRRSCMAATLRIIEENIPELLSLNLSNNRLYRLDDMSSIVQKAPNLKILNLG  
NELKSERELDKIKGLKLEELWLDGNSLCDTFRDQSTYISAIRERFPKLLRLDGHELPPPIAFDVEAPTTLPPCKG  
SYFGTENLKSLVLHFLQQYYAIYDSGDRQGLLDAYHDGACCSLSIPFIPQNPARRSLAEYFKDSRNVKKLKDPTL  
RFRLKHXTRLNVVAFNLNPKTQHDVNSFVVDISAQTSTLLCFSVNGVFKEVDGKSRDSLRAFTRTFIAVPASNS  
GLCIVNDELFRVNASSEEIQRAFAMPAPTTPSSSPVPTLSPEQQEMLQAFSTQSGMNLEWSQKCLQDNNWDYTRSA  
QAFTHLKAKGEIPEVAFMK

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**FIGURE 1341**

CGGGAAGCGCGGCGGGGCTCCAGACCGGGGCGGGCTTAAGGGTGACATCTGCGCTTTAAAGGGTCCGGGTCAGC  
TGAATCCCGACTCTGTGGAGTCTAGCTGCCAGGGTCGCGGCAGTGCGGGGAGAG**ATG**ACTGGGGAGCGACCCAGC  
ACGGCGCTCCCGGACAGACGCTGGGGGCCGCGGATTCTGGGCTTCTGGGGAGGCTGTAGGGTTTGGGTGTTTGCC  
GCGATCTTCTGCTGCTGTCTCTGGCAGCCTCCTGGTCCAAGGCTGAGAACGACTTCGGTCTGGTGCAGCCGCTG  
GTGACCATGGAGCAACTGCTGTGGGTGAGCGGGAGACAGATCGGCTCAGTGGACACCTTCCGCATCCCGCTCATC  
ACAGCCACTCCGCGGGGCACTCTTCTCGCCTTTGCTGAGGCGAGGAAAATGTCTCATCCGATGAGGGGGCCAAG  
TTCATCGCCCTGCGGAGGTCCATGGACCAGGGCAGCACATGGTCTCCTACAGCGTTTATTGTCAATGATGGGGAT  
GTCCCCGATGGGCTGAACCTTGGGGCAGTAGTGAGCGATGTTGAGACAGGAGTAGTATTTCTTTTCTACTCCCTT  
TGTGCTCACAAGGCCGGCTGCCAGGTGGCCTCTACCATGTTGGTATGGAGCAAGGATGATGGTGTTCCTGGAGC  
ACACCCCGGAATCTCTCCCTGGATATTGGCACTGAAGTGTTTGCCCTGGACCGGGCTCTGGTATTGAGAAACAG  
CGGGAGCCACGGAAGGGCCGCCTCATCGTGTGTGGCCATGGGACGCTGGAGCGGGACGGAGTCTTCTGTCTCCTC  
AGCGATGATCATGGTGCCTCCTGGCGCTACGGAAGTGGGGTCAGCGGCATCCCCTACGGTCAGCCCAAGCAGGAA  
AATGATTTCAATCCTGATGAATGCCAGCCCTATGAGCTCCCAGATGGCTCAGTCGTCAATGCCCCGAAACCAG  
AACAACCTACCACTGCCACTGCCGAATTGTCTCCGCAGCTATGATGCCTGTGATACACTAAGGCCCCGTGATGTG  
ACCTTCGACCCTGAGCTCGTGGACCCTGTGGTAGCTGCAGGAGCTGTAGTCACCAGCTCCGGCATTGTCTTCTTC  
TCCAACCCAGCACATCCAGAGTTCCGAGTGAACCTGACCCTGCGATGGAGCTTCAGCAATGGTACCTCATGGCGG  
AAAGAGACAGTCCAGCTATGGCCAGGCCCCAGTGGCTATTCATCCCTGGCAACCCTGGAGGGCAGCATGGATGGA  
GAGGAGCAGGCCCCCAGCTCTACGTCTGTATGAGAAAGGCCGGAACCACTACACAGAGAGCATCTCCGTGGCC  
AAAATCAGTGTCTATGGGACACTCT**TGA**GCTGTGCCACTGCCACAGGGGTATTCTGCCTTCAGGACTCTGCCTTCA  
GGAACACGGGTCTGTAGAGGGTCTGCTGGAGACGCCTGAAAGACAGTTCCATCTTCTTTAGACTCCAGCCTTGG  
CAAAATCACCTTCCCTTTACCAGGGAAATCACTTCTTTAGGACTGAAAGCTAGGCGTCTCTCCACAAAAAAG  
TCCTGCCCTCATCTGAGAATACTGTCTTTCCATATGGCTAAGTGTGGCCCCACCACCCTCTCTGCCTCCCGGGAC  
ATTGATTGGTCTGTCTTGGGCAGGTCTAGTGAGCTGTAGAATTGAATCAATGTGAACTCAGGGAAGTGGGGAAG  
GCTGAGCCTCCTCTTTGGTGTTCGGTAAGATAACCGACAGGGCTGGTGAAAGTCCCCAGATGGCAGGATATTTG  
GTTTCAGAGTAAGGACTAGGTGCACCACCATGACTGACTATCAATCAAAATGTTTGTAACCTAAAAATTTTAAATG  
AAGGATAATGAATATTTTA

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**FIGURE 1342**

MTGERPSTALPDRRWGPRILGFWGGCRVWVFAAIFLLLSLAASWSKAENDFGLVQPLVTMEQLLWVSGRQIGSVD  
TFRIPLITATPRGTLLAFAEARKMSSSDEGAKFIALRRSMDQGSTWSPATAFIVNDGDVPDGLNLGAVVSDVETGV  
VFLFYSLCAHKAGCQVASTMLVWSKDDGVSWSTPRNLSLDIGTEVFAPGPGSGIQKQREPRKGRLIVCGHGTLE  
DGVFCLLSDDHGASWRYGSGVSGIPYGQPKQENDFNPDECQPYELPDGSVVINARNQNNYHCHCRIVLRSYDADC  
TLRPRDVTTFDELVDPVVAAGAVVTSSGIVFFSNPAHPEFRVNLTLRWSFSNGTSWRKETVQLWPGPSGYSSLAT  
LEGSMGDGEEQAPQLYVLYEKGRNHYTESISVAKISVYGTL

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**FIGURE 1343**

GAACACCAGCGAGCTGGTCTCCAGCGAGGTCTACCTGCTCAGTGCCTTGGCTGCTCTGCAGAAAGGTTGTGGAGAC  
TCTCCCGCACTTCATCAGCCCCCTATCTGGAAGGCATTCTCTCCAGGTGATTCATCTGGAGAAAAATCACTAGTGA  
AATGGGTTCTGCGTCACAGGCTAATATCCGTCTCACATCTCTTAAAAAGACACTGGCTACCACACTTGCACCCCG  
AGTCCTGTTGCCCGCCATCAAAAAAATTACAAGCAGATTGAGAAGAACTGGAAGAATCACATGGGTCCGTTTAT  
GAGCATCTTGCAAGAGCATATTGGGGCGATGAAGAAGGAAGAGCTCACCTCCCATCAGTCTCAGCTAACC GCCTT  
TTTCTGGAGGCCCTGGACTTCCGAGCCCAGCACTCTGAGAACGATCTGGAGGAAGTTGGAAAAACGGAAAATTG  
TATCATTGACTGTCTAGTAGCCATGGTTGTCAAACCTTTCCGAGGTACATTACAGGCCCTGTTCTTCAAGCTGTT  
TGATTGGGCTAAAACAGAAGATGCCCCAAAGGACAGGTTGTTGACATTTTACAACCTTGGCAGATTGCATTGCTGA  
AAAGCTGAAAGGGCTTTTTACTCTGTTTGCCGGCCACTTAGTGAAGCCTTTTGCTGACACCTTGGACCAGGTGAA  
CATCTCCAAAACAGATGAAGCATTTTTTGA CTCTGAAAATGACCCTGAAAAGTGCTGCTTGCTGTTGCAGTTTAT  
TTTGAAC TGTTTATACAAAATCTTCCTTTTTTGATACCCAGCATTTTATAAGTAAAGAGAGAGCAGGAGCCTTGAT  
GATGCCTCTGGTGGATCAGCTGGAAAACAGGCTTGGGGGAGAAGAGAAATTCCAGGAACGGGTGACAAAGCACCT  
GATACCATGCATCGCACAGTTTTTCAGTGGCCATGGCGGATGACTCTCTTTGGAAACCACTGAACTACCAGATTCT  
GCTAAAGACGAGAGACTCCTCGCCTAAGGTTGATTTGCTGCTTTGATTACTGTGTTAGCACTGGCTGAAAACT  
AAAGGAGAATTATATTGTCTTGCTACCAGAAATCCATTCTTTCTTAGCAGAGTTGATGGAAGATGAATGTGAAGA  
AGTAGAACATCAGTGCCAAAAGACTATTTCAGCAACTGGAACTGTCCTGGGAGAGCCACTCCAGAGCTATTTCTA  
AGACTTTCTGTGGTGTTCATACTCTACTCAGAGTTCACACTCATATTTTCATATTTTTATTTTTGGGTGTTGGGT  
GCCATGTTACTTTTGGTGCCTTAATACACCTACTTGGATTACTTACAAATGTTTTATCACTTCGTTACAAAATCC  
CCACCTGGCTTGCTGCTGCCACATAAGCCTCTCCTGCCTATCGTATAGAGCTGCAGAAAGAGTAAATGATACACGG  
TATTTTTAAAAA

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**FIGURE 1344**

MGSASQANIRLTSLKKTLLATTLAPRVLLPAIKKTYKQIEKNWKNHMGPFMSILQEHIGAMKKEELTSHQSQLTAF  
FLEALDFRAQHSENDLEEVGKTENCIIIDCLVAMVVKLSEVTFRPLFFKLFDWAKTEDAPKDRLLTFYNLADCIAE  
KLKGLFTLFAGHLVKPFADTLDQVNISKTDFAFFDSENDPEKCCLLLQFILNCLYKIFLFDTHFISKERAGALM  
MPLVDQLENRLGGEEKFQERVTKHLIPCIAQFSVAMADDSLWKPLNYQILLKTRDSSPKVRFAALITVLALAEKL  
KENYIVLLPESIPFLAELMEDECEEVEHQCKTIQQLETVLGEPLQSYF

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**FIGURE 1345**

CCGAGCCTGGAGTTTGCATGAAACTTTACCTGCGCTCCGGGGAGACTTTTCGGCTCCGGCTCCCACCGCGCGCCT  
CGCCGCCCTCGCAACCGCGGGCTCCGTCCAACCCGGCCCGAC**ATCG**ACGTGCTCCCCATGTGCAGCATCTTCCAG  
GAGCTCCAGATCGTGCACGAGACCGGCTACTTCTCGGCGCTGCCGTCTCTGGAGGAGTACTGGCAACAGACCTGC  
CTAGAGCTGGAACGTTACCTCCAGAGCGAGCCCTGCTATGTTTCAGCCTCAGAAATCAAATTTGACAGCCAGGAA  
GATCTGTGGACCAAAATCATTCTGGCTCGGGAGAAAAAGGAGGAATCCGAAGTGAAGATATCTTCCAGTCTTCCA  
GAGGACACTCTCATCAGCCCGAGCTTTTGTACAACTTAGAGACCAACAGCCTGAAGTCAAGATATCTTCCAGTCTTCCA  
TCCTCTGACAGCTCCGAGGAACCTTTCTCCACGGCCAAGTTTACCTCCGACCCCATTTGGCGAAGTTTGGTCAGC  
TCGGGAAAAATTGAGCTCCTCTGTACCTCCACGCCTCCATCTTCTCCGGAAGTGAAGAGGGAACCTTCTCAACTG  
TGGGGTTGCGTGCCCGGGGAGCTGCCCTCGCCAGGGAAGGTGCGCAGCGGGACTTCGGGGAAGCCAGGTGACAAG  
GGAAATGGCGATGCCTCCCCGACGGCAGGAGGAGGGTGCACCGGTGCCACTTTAACGGCTGCAGGAAAGTTTAC  
ACCAAAAGCTCCCACTTGAAAGCACACCAGCGGACGCACACAGGAGAAAAGCCTTACAGATGCTCATGGGAAGGG  
TGTGAGTGGCGTTTTTGCAAGAAGTGATGAGTTAACCAGGCACTTCCGAAAGCACACCGGGGCCAAGCCTTTTAAA  
TGCTCCCACTGTGACAGGTGTTTTTCCAGGTCTGACCACCTGGGCCTGCACATGAAGAGGCACCTCT**AGA**GGGAGC  
AAAGAGGTGGATCCTGTAGGCTAAAAGGCTTCCAGGCTGAGAGCCGGCCGTGGAAGGAGGGATGCGTGTTCCAGC  
CAAAGCATGCCGTTCTGCACCTACCCAGTTGCCTCCAGGGCCTCTCCTTGGAAGGTCTTTTGAAGGCTAAAAAGG  
TCCTGTAAGAAGTGGCATAGCACCCGTGGTGATGGTATGTGGGTGACCCTGGACTCGCCACTGGTACCCGCCCT  
TCCGAGCGGCGCCTAAGCCTTTGCCGTGAGCATGCACACTGAGAATGCTAATGGTTGGGTTGATTGTATGTTGAG  
GATCTATTACTGACCGTATGATGAGGCCAACTTTTTTTCCTTGTTGGTTAGCAAGACTGCAAGAGATGGAAAAAA  
GTAGTTTGAATGTTTTGTGTGAAAGGAGTATACCATGAGATGAGATGACCACCAATCATTTTCCTTGGGGGGAGGG  
GGTGCTGTCACCTTAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1346**

MDVLPMCSIFQELQIVHETGYFSALPSLEEWQOTCLELERYLQSEPCYVSASEIKFDSQEDLWTKIILAREKKE  
ESELKISSPPEDTLISPSFCYNLETNSLNSDVSSSESSDSSEELSPTAKFTSDPIGEVLVSSGKLSSSVTSTPPS  
SPELSREPSQLWGCVPGELPSPGKVRSGTSGKPGDKNGDASPDGRRRVHRCHFNGCRKVYTKSSHLKAHQRTHT  
GEKPYRCSWEGCEWRFARSDELTRHFRKHTGAKPFCSHCDRCFSRSDHLGLHMKRHL

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**FIGURE 1347A**

TCCACTCCTGGAGCCCGCGGACCCCGAGCACGCGCCTGACAGCCCCTGCTGGCCCGGCGCGCGGCGTCCGCCAGGC  
CAGCT**ATG**GCCCCCGACCCGGTGGCCGCCGAGACCGCGGCTCAGGGACCTACCCCGCGCTACTTCACCTGGGACG  
AGGTGGCCCAAGCGCTCAGGGTGGGAGGAGCGGTGGCTAGTGATCGACCGTAAGGTGTACAACATCAGCGAGTTCA  
CCCGCCGGCATCCAGGGGGCTCCCGGGTCATCAGCCACTACGCCGGGAGGATGCCACGGATCCCTTTGTGGCCT  
TCCACATCAACAAGGGCCTTGTGAAGAAGTATATGAACCTCTCTCCTGATTGGAGAAGTGTCTCCAGAGCAGCCCA  
GCTTTGAGCCCACCAAGAATAAAGAGCTGACAGATGAGTTCCGGGAGCTGCGGGCCACAGTGGAGCGGATGGGGC  
TCATGAAGGCCAACCATGTCTTCTTCTGCTGTACCTGCTGCACATCTTGCTGCTGGATGGTGCAGCCTGGCTCA  
CCCTTTGGGTCTTTGGGACGTCTTTTTTGGCCTTCTCTCTGTGCGGTGCTGCTCAGTGCAGTTCAGGCCCAGG  
CTGGCTGGCTGCAGCATGACTTTGGGCACCTGTGCGTCTTCAGCACCTCAAAGTGAACCATCTGCTACATCATT  
TTGTGATTGGCCACCTGAAGGGGGCCCCCGCCAGTTGGTGAACCACATGCACCTCCAGCACCATGCCAAGCCCA  
ACTGCTTCCGCAAAGACCCAGACATCAACATGCATCCCTTCTTCTTTGCTTGGGGAAGATCCTCTCTGTGGAGC  
TTGGGAAACAGAAGAAAAAATATATGCCGTACAACCACCAGCACAAATACTTCTTCTTAATTGGGCCCCCAGCCT  
TGCTGCCTCTCTACTTCCAGTGGTATATTTTCTATTTTGTATCCAGCGAAAGAAGTGGGTGGACTTGGCCTGGA  
TGATTACCTTCTACGTCCGCTTCTTCTCACTTATGTGCCACTATTGGGGCTGAAAGCCTTCTTGGGCCTTTTCT  
TCATAGTCAGGTTCTTGAAAGCAACTGGTTTGTGTGGGTGACACAGATGAACCATATTCCCATGCACATTGATC  
ATGACCGGAACATGGACTGGGTTTCCACCCAGCTCCAGGCCACATGCAATGTCCACAAGTCTGCCTTCAATGACT  
GGTTCAGTGGACACCTCAACTTCCAGATTGAGCACCATCTTTTTCCACGATGCCTCGACACAATTACCACAAAG  
TGGCTCCCCCTGGTGCAGTCTTGTGTGCCAAGCATGGCATAGAGTACCAGTCCAAGCCCCCTGCTGTCAGCCTTCG  
CCGACATCATCCACTCACTAAAGGAGTCAAGGCGAGCTCTGGCTAGATGCCTATCTTACCAA**TA**CAACAGCCAC  
CCTGCCCAGTCTGGAAGAAGAGGAGGAAGACTCTGGAGCCAAGGCAGAGGGGAGCTTGAGGGACAATGCCACTAT  
AGTTTAATACTCAGAGGGGGTTGGGTTTGGGGACATAAAGCCTCTGACTCAAACCTCCTCCCTTTTATCTTCTAGC  
CACAGTTCTAAGACCCAAAGTGGGGGTGGACACAGAAGTCCCTAGGAGGGAAGGAGCTGTTGGGGCAGGGGTGT  
AAATTATTTCTTTTTCTAGTTTGGCACATGCAGGTAGTTGGTGAACAGAGAGAACCAGGAGGGTAACAGAAGAG  
GAGGGACCTACTGAACCCAGAGTCAGGAAGAGATTAACTATAAATTCCACTCATGCCGGGCGTGGTGGCACGC  
GCCTGTAATCCAGCTACCCAGGAGGCTGAGGCAGGAGAATCGCTTGAACCGGGGAGGTGGAGGTTGCAGTGAGC  
TGAGATCACGCCATTGTACTCCAGCCTGGGCGACAGAGCAAGACTCCATTTCAAAAAAAAAAAAAAAAAATCCACTC  
ATATAAAAGGTGAGCTCAGCTCACTGGTCCATTTCTCAGTGGCTTCTCCATCCTCATTTGCAAACTCAGAGGGA  
TAAGGCAGTTGAACCTGATGAGCAAGAATTATAACAGCAAGGAAACATTAATGCTTAGAATTCTGAGATCCAGCA  
CAACTCAGTCTGTGGGAGCTCAGCTCGCTGCCAGGGATAGGTATGACCTATGTCTGCCTTAGGCTGCTGGGAGA  
TGCCATTCTCCAGTTTTCAGAAGCAGGCAGGGCAAAGGTCAAGACTGTGGTATTGGGGTCTTTTGGCTCTGAAGGA  
TCCTGGAACCACTGATTTTGGTTTATTCCCTCCAGGGTCTAAAGAGAACAAGAGGTGCTAGCTCTTACCAAAACA  
GATGGTAGAGAGAGTTGCTGGCTATTTAAAAAGCTCTTTCATCTTTTAATTACCTCTTCTTTTACCTCTTTAA  
CCACTCCTCAGGAACAGAACACTTCTAGGACTGGGGGTCTTTTAGCTCCATAAGCAAGTGAGCAGATGGGACAAG  
TTAGTCTTTTCTCCCTAGAAACAAAGGGGATGCCCAGTGGTTTCCCTTTGCTTCCCAACCTAAAATTTCAAGTTT  
AATAAAATAGCAATTAGCAGAAGTGACCAAAATGGGAGATAATTATCAGTCATGAGGAAAGACACAGATTTCCGT  
CATAAAGAATGTAAGGGCTATAAGTAGAACTTTCTATAACCTAAATGATGTTATAGAATTATTTTTGAGCAGGA  
GCAGAAAGATTAAATATGATCACTTCATACTTCTAAATCAGAAATAGGAAGATTAAACCACAGAACAGTTTGTG  
ATTTCTATTGCTGTAGCTAGGTATCTTACTCTGTCCACTCTTGTTCAAGTATCTAACTCTTCTGGAAACCAAATA  
GGCTTTAGAAGAGATTATCCTATATTCTATCAGTATAATACTAAAATGTAACCTTTTAAATCATCTGGTTTTTAA  
AAGATAAACAGTTTtagccCATCTCTCCAGAGAGCAACATAGGAATATGACTCAGGAGCCTCCTAGGGCTTATCA  
TCAGCCCTCACACCCGCTTCCCCCTCCAACCCACAGCCTTTGCTTCCAGGTGGCAGGATTACTACTTTGCCTCTT  
CAGCAGCATCTACTCTAGGCATATTGATCATTTTtagacACTGGGAGAAGAGAACCTCAAACtaggAGGAAAAAGAC  
AGAGCCTCCACTTAGTTTTGGGAGGGGATGGCAGACAGTCAAGGAGATGAGCGTCCTAAGGCATGTTGGGATAGG  
GTCAGATGCACCACCCATGGAGAGGTTTGTCAACACAAAAGACATGGAAGGTTAGAGGTTTGTCAACAAAAAGACA  
TGGAAGGTTAGGTTTGTCAACACAAAGACATGGAAGATTAGAGGTTTGTCAACACAAAGACACAGGAAGAATGGG  
CTGCAGAAGATTAGATGTTTTCCATTTGGGCACATTTTACTTAGCTGGAGAAGTAGGTTTAAACAGCCTGGGT  
AGGAAAAATTAGAAGCAAGCTGGATGCAGTGGCTCATGCCTGTAATCCCAACACTTTTGGGAGGTCCAGGCAGGAG  
GATCACTTGGGCCCAGGAGGTCAAGCCTGCAGCGAGCTGAGATCACACCACTGCACTCCAGCCTGGGGTGATAGA



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**FIGURE 1347B**

ACAAGACCCTGTCTCAAAAAAAAAAAAAAAAAACAACAAAACTTAGAATTGAGGAGTTGTACCTCCATTGGCTTCCT  
CACTCCAAAATAGGTGCTGATCCTTCCTATTCCTATTCTTTGCCACCTTTTGGGTGTGGTGTACCCAGCCTGTTT  
AGCCAAGTAGCTTTGGGCATAGGCTGCCCAATCTGAGCAAACACCAGTGAGGCTCTATTGAGCCAAGACCAAGTC  
CTCAAAGCACCTGAACCACTGTGGCCTTCTCAGCCTACAGCAGTGTGGTCTCTTACATGGCCACAAAGGGACACA  
CAGTGACAAAAGGCTCGGAATGTTACAATGGTAAAATGAGTGATCTCAAATCCACTGACAGATATAAAAATAGGCT  
TAGAGAGGAAAAGCTGCCTCTGGTCAAGTAGATCATGGCAGCATGAATTCCAACCTCACTTTTTTACAACCTCCAAC  
TTCTATGTTTATCTTTGTTACTTTCACTTTTTTACAACCTGGCCAGAGGCATTTTTTAAATCAGGCCCAATATCA  
GTATTCTTTTTGTGTGTGCCAATTTTGTATCACATCCCTATGAAGTTGAAAAATAAGTTAATTTTGACCAAAA  
AAAAAAAAAAAAAG

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**FIGURE 1348**

MAPDPVAAETA AQGPTPRYFTWDEVAQRSGCEERWLVIDRKVYNISEFTRRHPPGGSRVISHYAGQDATDPFVAFH  
INKGLVKKYMNSLLIGELSPEQPSFEPTKNKELTDEFREL RATVERMGLMKANHVFFLLYLLHILLLDGAAWLTL  
WVFGTSFLPFLLCAVLLSAVQAQAGWLQHDFGHLSVFSTSKWNHLLHHFVIGHLKGAPASWWNHMHFQHHAKPNC  
FRKDPDINMHPPFFALGKILSVELGKQKKKYPYNHQHKYFFLIGPPALLPLYFQWYIFYFVIQRKKWVDLAWMI  
TFYVRFFLTYPVLLGLKAFLGLFFIVRFLESNWFVWVTQMNHIPMHIDHNRNMDWVSTQLQATCNVHKSAFNDWF  
SGHLNFQIEHHLFPTMPRHNYHKVAPLVQSLCAKHGIEYQSKPLLSAFADIIHSLKESGQLWLDAYLHQ

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**FIGURE 1349**

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCGCCATC**ATG**AGGGAAATCGTGCA  
CTTGACAGGCCCGGCAGTGCGGCAACCAAATCGGCGCCAAGTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA  
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG  
CGGCAAGTACGTGCCCCGCGCCGTGCTCGTGGAATCTGGAGCCCCGGCACCATGGACTCCGTGCGCTCGGGGGCCCTT  
CGGGCAGATCTTCCGGCCGGACAACCTTCGTTTTTCGGTCAGAGTGGTGCTGGGAACAACCTGGGCCAAGGGGGCACTA  
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA  
GGGTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG  
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCTTCGCCCAAAGTGTGAGACACAGTGGTGA  
GCCCTACAACGCCACCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC  
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCCACCTATGGTGACCTGAACCACCTGGTGTCTGC  
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA  
CATGGTCCCGTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA  
CCGGGCGCTGACCGTGCCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCTGCGACCCCCG  
CCATGGCCGCTACCTGACGTTGCCGCCGTGTTACGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT  
TAATGTCCAAAACAAAACAGCAGCTATTTTGTGAGTGGATCCCCAACAATGTGAAAACGGCTGTCTGTGACAT  
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT  
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT  
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA  
GGAGGAGGGCGAGTTCGAGGAGGAGGCTGAGGAGGAGGTGGCC**TAG**AGCCTTCAGTCACTGGGGAAAGCAGGGAA  
GCAGTGTGAACTCTTTATTCACTCCAGCCTGTCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT  
CCACATCCATGCTGTACAGACACCACCATTAAAGCATTTTTCATAGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 1350**

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL  
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL  
NHLVSATMSGVTTCLRFPQQLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQKNSSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEGEFEFEAEFEVA

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**FIGURE 1351**

GCGGGCGCATGCGCAAGGGGGCGCGCCGCCTCTGCCCCGCGGCGAGGGTGTCTATGGAGAGGCGGCGGCCGCGGC  
TGCTGAGGCGGAGGCTGAGGCAGTGGCG**ATG**CGCCCTTTTCCTGAAGAAGTGGACGTCTTCACCGCCCCACACTG  
GCGGATGAAGCAGCTGGTGGGGCTCTACTGCGACAAGCTTTCTAAAACCAATTTTTTCCAACAACAACGATTTCCG  
TGCTCTTCTGCAGTCTTTGTATGCTACTTTCAAGGAGTTCAAAATGCATGAGCAGATTGAAAATGAATACATTAT  
TGGTTTGCTTCAACAACGCAGCCAGACCATTATATAATGTACATTCTGACAATAAACTCTCCGAGATGCTTAGCCT  
CTTTGAAAAGGGACTGAAGAATGTTAAGAATGAATATGAACAGTTAAATTATGCAAAACAACCTGAAAGAGAGATT  
GGAGGCTTTTACAAGAGATTTTCTTCCTCACATGAAAAGAGGAAGAGGAGGTTTTTTCAGCCCATGTTAATGGAATA  
TTTTACCTATGAAGAGCTTAAGGATATTAAGAAAGAAAGTGAATGCACAACACTGCTCTCAGAAGGATACTGCAGA  
ACTCCTTAGAGGTCTTAGCCTATGGAATCATGCTGAAGAGCGACAGAAGTTTTTTAAATATTCCGTGGATGAAAA  
GTCAGATAAAGAAGCAGAAGTGTGCAAACTCCACAGGTATAACCCATCTTCCTCCTGAGGTAATGCTGTCAAT  
TTTCAGCTATCTTAATCCTCAAGAGTTATGTCGATGCAGTCAAGTAAGCATGAAATGGTCTCAGCTGACAAAAAC  
GGGATCGCTTTGGAAACATCTTTACCCTGTTCAATTGGGCCAGAGGTGACTGGTATAGTGGTCCCGCAACTGAACT  
TGATACTGAACCTGATGATGAATGGGTGAAAAATAGGAAAGATGAAAGTCGTGCTTTTCATGAGTGGGATGAAGA  
TGCTGACATTGATGAATCTGAAGAGTCTGCGGAGGAATCAATTGCTATCAGCATTGCACAAATGAAAAACGTTT  
ACTCCATGGCTTAATTCATAACGTTCTACCATATGTTGGTACTTCTGTAAAAACCTTAGTATTAGCATACAGCTC  
TGCAGTTTCCAGCAAAATGGTTAGGCAGATTTTAGAGCTTTGTCCTAACCTGGAGCATCTGGATCTTACCCAGAC  
TGACATTTAGATTCTGCATTTGACAGTTGGTCTTGGCTTGGTTGCTGCCAGAGTCTTCGGCATCTTGATCTGTC  
TGGTTGTGAGAAAATCACAGATGTGGCCCTAGAGAAGATTTCCAGAGCTCTTGAATTCTGACATCTCATCAAAG  
TGGCTTTTTGAAAACATCTACAAGCAAAATTACTTCAACTGCGTGGAAAAATAAAGACATTACCATGCAGTCCAC  
CAAGCAGTATGCCTGTTTGACGATTTAACTAACAAGGGCATTGGAGAAGAAATAGATAATGAACACCCCTGGAC  
TAAGCCTGTTTCTCTGAGAATTTCACTTCTCCTTATGTGTGGATGTTAGATGCTGAAGATTTGGCTGATATTGA  
AGATACTGTGGAATGGAGACATAGAAATGTTGAAAGTCTTTGTGTAATGGAAACAGCATCCAACCTTTAGTTGTTT  
CACCTCTGGTTGTTTTAGTAAGGACATTGTTGGACTAAGGACTAGTGTCTGTTGGCAGCAGCATTGTGCTTCTCC  
AGCCTTTGCGTATTGTGGTCACTCATTTTGTGTACAGGAACAGCTTTAAGAACTATGTCATCACTCCAGAAATC  
TTCTGCAATGTGTAGAAAAGCAGCAAGGACTAGATTGCCTAGGGGAAAAGACTTAATTTACTTTGGGAGTGAAAA  
ATCTGATCAAGAGACTGGACGTGTACTTCTGTTTCTCAGTTTATCTGGATGTTATCAGATCACAGACCATGGTCT  
CAGGGTTTTGACTCTGGGAGGAGGGCTGCCTTATTTGGAGCACCTTAATCTCTCTGGTTGTCTTACTATAACTGG  
TGCAGGCCTGCAGGATTTGGTTTCAGCATGTCTTCTCTGAATGATGAATACTTTTACTACTGTGACAACATTAA  
CGGTCTCATGCTGATACCGCCAGTGGATGCCAGAATTTGCAGTGTGGTTTTTCGAGCCTGCTGCCGCTCTGGCGA  
**ATGA**CCCTTGACTTCTGATCTTTGTCTACTTCAATTTAGCTGAGCAGGCTTTCTTTTCATGCACTTTACTCATAGCA  
CAATTTCTTGTGTTAACCATCCCTTTTTGAGCGTGACTTGTTTTGGCCCCATTTCTTACAACCTTCAGAAATCTTAA  
TTTACCAGTGAATTGTAATGTTGTTTCTCTTGCAAATTATACCTTTTGGTTTAGAAAGGGATTAGGTCTTTTCAA  
AGGGTGAGAACAGTCTTACATTTTTCTTTTAAATGAAATGCTTTAAAGAATGTTGGTAATGCCATGTCATTTAA  
GTATTTCATAGATAATTTTGAGTTTTAAAGTCCATGGAGGTGATTGGTTCTCTTTACACATTAACACTGTACCAA  
GCTTTGCAGATCTTTTCCGACACACATGTCTGAAGACTTATTTCAAAGACAGCACATTTTGGAAACTAATCTC  
TTTTCCGTAATATTTCTTTTATTTCAATGATTCTCAGAAGGCCAATTCAAACAACCCACATTTAAGGTTCTTTA  
GGATTATAGAAATAAATTGGCTTCTGAGTGTAGCTCAGTGAGCTAGGAAAGCACCAATCGATATTTGTTTCCTTT  
AGGGATACTTTGTTCTCACCCTGTCCCTATGTCATCAAATTTGGGAGAGATTTTTTAAATACCAATCATTT  
GAAGAAATGTATAAATAAATCTACTTTGAGGACTTTACCAAGTAATACTGTTGTGTTGTGATTTTTATTATAAA  
TCTCAATCCAGGTTTACTTTAGTATAGAATAGGACTACATACTTTGTCTTTGGACCTCCCATGAACTTATTACCC  
TGACAAATAGTTTTAGACAGATACTGAATTTTATTGAGCTGAATTTCTTTTTGAAATGAGTTATTAGTAGTCA  
AAATTTGAATCCGTAAGTATATCTACTTTGCTTTGTAAAACATCATGAGAGTGGAGGCCTGCCACCCAGAAAGG  
CACATACTAGTGCTTTTAGTACAATTTTATGTCATGTAGAAGAAAAATGGCAATGTTCTCTCTATTGATACAGAT  
ACAGGCATATGTCATCTTATTGCGTTTTGCTTTATTGCACTTTGCAAAATAATGCATTTTTTACAAATGGAAGGTT  
TATGGCAACTCTGCGTTGAGCCAGTCTATTGGTGCCATGTTTCCAATAAACTTCTCTTTTCATGTCTCGT

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**FIGURE 1352**

MAPFPPEVDVFTAPHWRMKQLVGLYCDKLSKTNFSNNNDFRALLQSLYATFKEFKMHEQIENEYIIIGLLQQRSQT  
IYNVHSDNKLSEMLSLFEKGLKNVKNEYEQNLNYAKQLKERLEAFTRDFLPHMKEEEEVFQPMLMEYFTYEELKDI  
KKKVIAQHCSQKDTAELLRGLSLWNHAEERQKFFKYSVDEKSDKEAEVSEHSTGITHLPPEVMLSIFSYPNPQEL  
CRCSQVSMKWSQLTKTGSLWKHLYPVHWARGDWYSGPATELDEPDDDEWVKNRKDESRAFHEDDEDADIDEESES  
AEESIAISIAQMEKRLHGLIHNVLPHYVGTSVKTLVLAYSSAVSSKMVRQILELCPNLEHLDLTQTDISDSAFDS  
WSWLGCCQSLRHLDLSGCEKITDVALEKISRALGILTSHQSGFLKTSTSKITSTAWKNKDITMQSTKQYACLHDL  
TNKGIGEEIDNEHPWTKPVSSNFSTSPYVWMLDAEDLADIEDTVEWRHRNVESLCVMETASNFSCSTSGCFESKDI  
VGLRTSVCWQQHCASPAFAYCGHSFCCTGTALRTMSSLPRESSAMCRKAARTRLPBGKDLIYFGSEKSDQETGRVL  
LFLSLSGCYQITDHGLRVLTLLGGGLPYLEHLNLSGCLTITGAGLQDLVSACPSLNDEYFYYCDNINGPHADTASG  
CQNLQCGFRACCRSGE

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**FIGURE 1353**

AGTGCGCATCCGGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTTCGAAAGCAGGGACTAAAAGCCCCACTTCG  
TCTTACGTTCCGAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAG  
TCCTGAGTTGAGGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCAACTACG  
TGAACGACATGTGGCCGGGCTCGCCGCAGGAGAAGGATTTCGCCCTCGACCTCGCGGTCTGGGCGGGTCCAGCCGGC  
TGTCGTCTCGGGTCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCCC GCGTCTCGAGCCGGTTTTTCGT  
CCAGGAGTCGGAGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGT  
CATACTCGCGGAGCCGGTTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTACCAGGAGATACT  
ACCGGTCTCCTTCGCGGTACCGGTCCCGTCCCGTAGCAGGTTCGCGCTCTCGGGGAAGGTCGTACTGCGGAAGGG  
CGTACGCGATCGCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGA  
GGGACAGATCCAGGACGAGGTTCGCGGAGCAGAACCCCCCTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAG  
AAATAGCAAAAACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAAGTGTTC  
CTTCAGCCAAAGAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAAGTAAGTATTCTAGGTT  
TGTCGGAACAAAACCTTTCAGAAAGCCAACGTCAAATCTGAATAGCCACTTATATCTTAGACTATACTTTTTGGG  
AAGTCTAGAGATGTATATAATGTGCTAAATTCAAAGTAGCAAACTCTGAAGATAGGCAATGTCAAACCCATGAAAA  
TGGGAGATTAATGAGCTTTATTTGGCCGTGCATGGTGCCCTCATGCCTGTAATGAGGCAGATGGCTTGAGTCCAGG  
AGTTCAAGACTAGCCTGGGCAATGTGGCAAAACCGCGTGTTTACAAAAAATACAAAAATTAGCCAGGCATGGTGG  
TGCATGCCTGTAGTCCCAGCTGTTTGGGAGGCTGAGGCAGGAGGATCTTTGAGCCTAGGATGCTAAGGTTGCAGT  
GAGCCAAGATGGCACCATTGCACTCTAGCCTGGGCAGCAGAGCGAGACCCTGTCTCAAAAAATACATTTATTTTT  
TTCATTTTCAGTTAACAGTGTACTCTTATAACACCGTTATTAGCTGGTACTTTGGTGATTTCTATTACTAGTTTT  
TCTAAGCTATTTACAGAGTGTTTGTAGCTTTTCAATTTGCAGCATTATGTTCCACAAATTCTGTACTCAGCATATA  
CAGTATAGTTTATCTGCTCTATTTCTGTCTTATAGAAATCATGAATGTGGTCTGCAGACATTGATGAAGAAAATC  
TGTTGGTAATTGATACATGGGCTAAAGCATCAGAGGTTTAATTTGAAGTTTATGTTTACACACTGAAAACTTAGT  
TTTTTTGTTGGTAGATCCATGTGCATGCTAGAATTTGGGACAGGCCTATTTGCATAAAGTATTAAAGTCAATTT  
TTAAACTAAGCAAAGGTACACGTTGTAACGGTGGGGCATCTGTGAAAAAGATGTCCCTTTTATAATATATGCAAT  
ATATTCCAGATGTTTTGAGAGATTACAGAAGAGGAGGCCTGCTTCACCTGCAGATAAGTTTATTATAATTCTCCA  
GAAATGTGCAGGATGTGCATTAGCAAATTGCACTGTACTTTTCACTCCAGCCTGGGTGACAGAGCAAGACTCCCC  
TCTCGGGGGCTT

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**FIGURE 1354**

MSNYVNDMWPGSPQEKDSPSTSRSGGSSRLSSRSRSRSFSRSSSRSHSRVSSRFSSRSRRSKSRSRSRRRHQKYYR  
RYSRSYSRSRSRSRSRRYRERRYGFTRYYRSPSRYSRSRSRSRSRGRSYCGRAYAIARGQRYYGFGRTVYPEE  
HSRWRDRSRTRSRSRTPFRLSEKDRMELLEIAKTNAAKALGTTNIDLPA SLRTVPSAKETSRGIGVSSNGAKPEV  
SILGLSEQNFQKANCQI



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**FIGURE 1355**

GGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTTCGAAAGCAGGGACTAAAAGCCCCACTTCGTCTTACGTTCC  
GAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAGTCCTGAGTTGA  
GGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCAACCTACGTGAACGACATG  
TGGCCGGGCTCGCCGCAGGAGAAGGATTCGCCCTCGACCTCGCGGTTCGGGCGGGTCCAGCCGGCTGTCGTGCGGG  
TCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCGCCGCTCTCGAGCCGGTTTTTCGTCCAGGAGTCGG  
AGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGTTCATACTCGCGG  
AGCCGGTTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTTACCAGGAGATACTACCGGTCTCCT  
TCGCGGTACCGGTCCCGGTCCCGTAGCAGGTTCGCGCTCTCGGGGAAGGTTCGTACTGCGGAAGGGCGTACGCGATC  
GCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGAGGGACAGATCC  
AGGACGAGGTTCGCGGAGCAGAACCCCTTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAGAAATAGCAAAA  
ACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTCCCTTCAGCCAAA  
GAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAACTGTTCGGAAAAGGTAACAGAAGATGGA  
ACTCGAAATCCCAATGGAAAACCTACCCAGCAAAGAAGCATAGCTTTTAGCTCTAATAATTCTGTAGCAAAGCCA  
ATACAAAAATCAGCTAAAGCTGCCACAGAAGAGGCATCTTCAAGATCACCAAAAAATAGATCAGAAAAAAAGTCCA  
TATGGACTGTGGATACCTATCTAAAAGAAGAAAACCTGATGGCTAAGTTTGCATGAAAACCTGCACTTTATTGCAAG  
TTAGTGTTTCTAGCATTATCCCATCCCTTTGAGCCATTCAGGGGTACTTGTGCATTTAAAAACCAACACAAAAAG  
ATGTAAATACTTAACACTCAAATATTAACATTTTAGGTTTCTCTTGCAGATATGAGAGATAGCACAGATGGACCA  
AAGGTTATGCACAGGTGGGAGTCTTTTGTATATAGTTGTAAATATTGTCTTGGTTATGTAAAAATGAAATTTTTT  
AGACACAGTAATTGAACTGTATTCTGTTTTGTATATTTAATAAATTTCTTGTTTTTCATTCTTAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 1356**

GCGAGTTGTGTGAGCCGCCAGTATGGCCGGGCT**ATG**GCGGCGAGCACTGGCTACGTGCGACTGTGGGGAGCGGGCG  
CGGTGCTGGGTGCTGCGGCGGCCGATGCTGGCCGCCGCCGGGGGGCGGGTTCCCACTGCAGCAGGAGCGTGGTTG  
CTCCGAGGCCAGCGGACCTGCGACGCCTCTCCTCCTTGGGCACTGTGGGGCCGAGGCCCGCAATTGGGGGCCAA  
TGGCGGGGGTTTTTGGGAAGCGAGCAGCCGCGGCGGAGGCGCATTCTCGGGGGCGAGGACGCCTCCGAGGGCGGC  
GCGGAGGAAGGAGCCGGCGGCGCGGGGGGCGAGCGCGGGCGCCGGGAAGGCCCGGTCAATAACGGCGCTCACGCCC  
ATGACGATCCCCGATGTGTTTTCCGCACCTGCCGCTCATCGCCATCACCCGCAACCCGGTGTTCGCCGCTTTATC  
AAGATTATCGAGGTTAAAAATAAGAAGTTGGTTGAGCTGCTGAGAAGGAAAGTTTCGTCTCGCCCAGCCTTATGTC  
GGCGTCTTTCTAAAGAGAGATGACAGCAATGAGTCGGATGTGGTCGAGAGCCTGGATGAAATCTACCACACGGGG  
ACGTTTGGCCAGATCCATGAGATGCAGGACCTTGGGGACAAGCTGCGCATGATCGTCATGGGACACAGAAGAGTC  
CATATCAGCAGACAGCTGGAGGTGGAGCCCGAGGAGCCGGAGGCGGAGAACAAGCACAAAGCCCCGAGGAAGTCA  
AAGCGGGGCAAGAAGGAGGCGGAGGACGAGCTGAGCGCCAGGCACCCGGCGGAGCTGGCGATGGAGCCACCCCT  
GAGCTCCCGGCTGAGGTGCTCATGGTGGAGGTAGAGAACGTTGTCCACGAGGACTTCCAGGTACCGGAGGAGGTG  
AAAGCCCTGACTGCAGAGATCGTGAAGACCATCCGGGACATCATTGCCCTTGAACCCTCTCTACAGGGAGTCAGTG  
CTGCAGATGATGCAGGCTGGCCAGCGGGTGGTGGACAACCCCATCTACCTGAGCGACATGGGCGCCGCGCTCACC  
GGGGCCGAGTCCCATGAGCTGCAGGACGTCTTGAAGAGACCAATATTCTAAGCGGTGTACAAGGCCCTCTCC  
CTGCTGAAGAAGGAATTTGAACTGAGCAAGCTGCAGCAGCGCCTGGGGCGGGAGGTGGAGGAGAAGATCAAGCAG  
ACCCACCGTAAGTACCTGCTGCAGGAGCAGCTAAAGATCATCAAGAAGGAGCTGGGCCTGGAGAAGGACGACAAG  
GATGCCATCGAGGAGAAGTTCCGGGAGCGCCTGAAGGAGCTCGTGGTCCCAAGCACGTATGGATGTTGTGGAC  
GAGGAGCTGAGCAAGCTGGGCCTGCTGGACAACCACTCCTCGGAGTTCAATGTCACCCGCAACTACCTAGACTGG  
CTCACGTCCATCCCTTGGGGCAAGTACAGCAACGAGAACCTGGACCTGGCGCGGGCACAGGCAGTGCTGGAGGAA  
GACCACTACGGCATGGAGGACGTCAAGAAACGCATCCTGGAGTTCAATTGCCGTTAGCCAGCTCCGCGGCTCCACC  
CAGGGCAAGATCCTCTGCTTCTATGGCCCCCTGGCGTGGGTAAAGACCAGCATTGCTCGCTCCATCGCCCCGCGCC  
CTGAACCGAGAGTACTTCCGCTTCAGCGTCGGGGGCATGACTGACGTGGCTGAGATCAAGGGCCACAGGCGGACC  
TACGTGGGCGCCATGCCCCGGAAGATCATCCAGTGTTTGAAGAAGACCAAGACGAGGAACCCCTGATCCTCATC  
GACGAGGTGGACAAGATCGGCCGAGGCTACCAGGGGGACCCGTCGTCGGCACTGCTGGAGCTGCTGGACCCAGAG  
CAGAATGCCAACTTCCTGGACCACTACCTGGACGTGCCCCGTGGACTTGTCCAAGGTGCTGTTTCATCTGCACGGCC  
AACGTACGGACACCATCCCCGAGCCGCTGCGAGACCGTATGGAGATGATCAACGTGTCGGGCTACGTGGCCAG  
GAGAAGCTGGCCATTGCGGAGCGCTACCTGGTGCCCCAGGCTCGCGCCCTGTGTGGCTTGGATGAGAGCAAGGCC  
AAGCTGTCATCGGACGTGCTGACGCTGCTCATCAAGCAGTACTGCCGCGAGAGCGGTGTCCGCAACCTGCAGAAG  
CAAGTGAGAAAGGTGTTACGGAAATCGGCCTACAAGATTGTCAGCGCGAGGCCGAGTCCGTGGAGGTGACGCCC  
GAGAACCTGCAGGACTTCGTGGGGAAGCCCGTGTTCACCGTGGAGCGCATGTATGACGTGACACCGCCCCGGCGTG  
GTCATGGGGCTGGCCTGGACCGCAATGGGAGGCTCCACGCTGTTTGTGGAGACATCCCTGAGACGGCCACAGGAC  
AAGGATGCCAAGGGTGACAAGGATGGCAGCCTGGAGGTGACAGGCCAGCTGGGGGAGGTGATGAAGGAGAGCGCC  
CGCATAGCCTACACCTTCGCCAGAGCCTTCCTCATGCAGCACGCCCCCGCCAATGACTACCTGGTGACCTCACAC  
ATCCACCTGCATGTGCCCCAGGGCGCCACCCCCAAGGACGGCCCAAGCGCAGGCTGCACCATCGTCACGGCCCTG  
CTGTCCCTGGCCATGGGCAGGCCTGTCCGGCAGAATCTGGCCATGACTGGCGAAGTCTCCCTCACGGGCAAGATC  
CTGCCTGTTGGTGGCATCAAGGAGAAGACCATTGCGGCCAAGCGCGCAGGGGTGACGTGCATCGTCCTGCCAGCC  
GAGAACAAGAAGGACTTCTACGACCTGGCAGCCTTCATCACCGAGGGCTGGAGGTGCACTTCGTGGAACACTAC  
CGGGAGATCTTCGACATCGCCTTCCCGGACGAGCAGGCAGAGGCGCTGGCCGTGGAACGGT**TGAC**GGCCACCCCGG  
GACTG**CA**GGCGGGCGGATGTCAGGCCCTGTCTGGGCCAGAACTGAGCGCTGTGGGGAGCGCGCCCGGACCTGGCAG  
TGGAGCCACCGAGCGAGCAGCTCGGTCCAGTGACCCAGATCCCAGGGACCTCAGTCGGCTTAATCAGAGTGTGGC  
ATAGAAGCTATTTAATGATTAAAGTCATTTCAGTA

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**FIGURE 1357**

MAASTGYVRLWGAARCWVLRRLPMLAAAGGRVPTAAGAWLLRGQRTCDASPPWALWGRGPAIGGQWRGFWEASSRG  
GGAFSGGEDASEGGAEEGAGGAGGSAGAGEGPVITALTPMTIPDVFPHLPLIAITRNPVFPRFIKIEVKNKKLV  
ELLRRKVRLAQPYVGVFLKRDDSNESDVVESLDEIYHTGTFAQIHEMQDLGDKLRMIVMGHRRVHISRQLEVEPE  
EPEAENKHKPRRKS KRKKEAEDELSARHPAELAMEPTPELPAEVLMEVENNVHEDFQVTEEVKALTAEIVKTI  
RDI IALNPLYRESVLQMMQAGQRVVDNPIYLSDMGAALTGAESHELQDVLEETNIPKRLYKALSLLKKEFELSKL  
QQRLGREVEEEKIKQTHRKYLLQEQLKIIKKELGLEKDDKDAIEEKFRERLKELVVPKHVMDVVDEELSKLGLLDN  
HSSEFNVTRNYLDWLTSIPWGKYSNENLDLARAQAVLEEDHYGMEDVKKRILEFIAVSQLRGSTQGKILCFYGGP  
GVGKTSIARSIARALNREYFRFSVGGMTDVAEIKGHRRTYVGAMPKIIQCLKKTKTENPLILIDEVDKIGRGYQ  
GDPSSALLELLDPEQNANFLDHYLDVPVDLSKVLFICTANVDTIPEPLRDRMEMINVSQYVAQEKLAIAERYLV  
PQARALCGLDESKAKLSSDVLTLIKQYCRESGVRNLQKQVEKVLKRSAYKIVSGEAESEVTPENLQDFVGKPV  
FTVERMYDVTPPGVVMGLAWTAMGGSTLFVETSLRRPQDKDAKGDGDGSLEVTGQLGEVMKESARIAYTTFARAF  
MQHAPANDYLVTSIHHLHVPEGATPKDGPSAGCTIVTALLSLAMGRPVRQNLAMTGEVSLTGKILPVGGIKEKTI  
AAKRAGVTCIVLPAENKKDFYDLAAFITEGLEVHFVEHYREIFDIAFPDEQAEALAVR

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**FIGURE 1358A**

TCAACATATGAAAAATCAATGTAATATTTTCATATTAACAGTTGGAAGACTCACAATTCATAGTTTCAGAATTTAC  
AACACAAACCTACAGGAATAAAGACAATGTAGTATTAGAATAAGGTCAGATATATAGATCAATGGACAGAATTGA  
CAGTCCAGAAATACACCCATACGATTACGGTCACCTGATTTTTGACTAAGGTTCCAAAACAATTCAGTAGGGGAA  
AGAATAGTCTTGTCAAAAAATGGTGCTCAGACAAGTGGATAGCCATAAGCACAGAATGAGTTTGGACCCCTATCT  
CAAATCTCAAATACAAACATTAACCTCCGAATTAATCAAATGCCTAAATTTAAGAGCTAAAAATTTTAAAGCTCTTA  
GAAGAAAACATAGGTACACATCTTTGTGACTTTGAATTAGGTCACGGTTTTCTTTGACATGACACTTAAAAGTACA  
AGCAACAAAAGAAAAAATAGATAAAATGAACTTCAGCAAAATTAGAATGTTTATGCTTCAGAAAACACTGTGAA  
GAAAGTGATCAGACAACCTCACAGAATGGGAAAAATATTTGTGAATCATATCTCTTAATAAGGGTCCAGCAGAAAA  
GGGCAAAGGTGGAAATGGAGGAGGAAAAACCTCTTCTGGTCCAAACCGAATGAATGGTCATCACCAACAGAATGG  
AGTGGAAAACATGATGTTGTTTGAAGTTGTTAAATGGGCAAGAGTGCTATGCAGTCGGTGGTAGATGATTGGAT  
AGAATCATACAAGCATGACCGAGATATAGCACTTCTTGACCTTATCACTTTTTTATTTCAGTGTTTCAGGCTGTAA  
AGGAGTTGTACAGCAGAAATGTTTAGACATATGCAGAACTCTGAGATAATTCGAAAAATGACTGAAGAATTCGA  
TGAGGATAGTGGAGATTATCCACTTACCATGGCTGGTCTCAGTGGAAGAAGTTCAAATCCAGTTTTTGTGAATT  
CATTGGCGTGTTAGTACGGCAATGTCAATATAGTATCATATATGATGAGTATATGATGGATACAGTCATTTCACT  
TCTTACAGGATTGTCTGACTCACAAGTCAGAGCATTTCGACATACAAGCACCTGGCAGCTATGAAGTTGATGAC  
AGCTTTGGTGAATGTGGCACTAAATCTTAGCATTAAATATGGATAATACACAAAGACAATATGAAGCAGAACGAAA  
TAAAATGATTGGGAAACGAGCCAATGAGAGGCTAGAACTCCTGCTACAAAAGCGGAAAGAGCTTCAGGAAAATCA  
AGATGAAATAGAAAATATGATGAATGCAATATTTAAAGGAGTGTTTGTACATAGATACCGTGATGCGATACGTGA  
AATTCGAGCTATTTGCATTGAAGAGATTGGCATTGGATGAAGATGTATAGTGATGCCTTTCTTAATGACAGTTA  
TTTAAATATGTTGGTTGGACTATGCATGATAAGCAAGGTGAAGTAAGACTCAAATGTCTTACTGCTCTACAAGG  
GCTTTATTATAACAAAGAGCTTAATTCCAACTGGAACCTTTTTACCAGTCGGTTCAAGGATAGAATTGTGTCTAT  
GACCCTTGACAAAGAATATGATGTTGCAGTACAAGCAATAAAATTACTCACTCTTGTTTTACAGAGTAGTGAAGA  
AGTTCTCACTGCAGAAGATTGTGAAAATGTCTATCATCTGGTTTTATTTCAGCTCACCGGCCAGTAGCAGTAGCAGC  
TGGAGAATTTCTCTACAAAAGCTCTTCAGTCGTAGAGATCCAGAGGAGGATGGAATGATGAAAAGAAGAGGAAG  
ACAAGGTCCAAATGCCAACCTTGTTAAGACATTGGTTTTTTTTCTTTCTAGAAAGTGAGTTACATGAGCATGCAGC  
ATACCTTGTTGGATAGCATGTGGGACTGTGCTACTGAGCTGCTGAAAGACTGGGAATGTATGAATAGCTTGTTACT  
GGAAGAGCCACTTAGTGAGAGGAAGCACTAACAGATAGGCAAGAGAGTGCTCTGATTGAAATAATGCTTTGTAC  
CATTAGACAAGCGGCTGAATGTCATCTCCCGTGGGAAGAGGGACAGGAAAAAGGGTGCTTACAGCAAAAGGAGAA  
GAAGACACAGTTGGATGATAGGACAAAAATCACTGAGCTTTTTGCCGTGGCCCTTCTCAGTTATTAGCAAAATA  
CTCTGTAGATGCAGAAAAGGTGACTAACTTGTTGCAGTTGCCTCAGTACTTTGATTGGAATATATACCACTGG  
ACGATTAGAAAACGATTGTTGATGCCTTATTGCGACAGATCCGGAATATTGTAGAGAAGCACACAGATACAGATGT  
TTTGGAAAGCATGTTCTAAAACCTTACCATGCCTCTGTAATGAAGAGTTACAATCTTCAACAGAGTAGATATTTT  
AAGAAGTCAACTGATAGATGAATTGGCAGATAAAATTTAACCGGCTTCTTGAAGATTTTCTGCAAGAGGGTGAAGA  
ACCTGATGAAGATGATGCATATCAGGTATTGTCAACATTGAAGAGGATCACTGCTTTTCATAATGCCCATGACCT  
TTCAAAGAGGGATTTATTTGCTTGTAATTACAACTCTTGAAAACCTGGAATCGAAAATGGAGACATGCCTGAGCA  
GATTGTTATTCACGCACTGCAGTGTACTCACTATGTAATCCTTTGGCAACTTGCTAAGATAACTGAAAGCAGCTC  
TACAAAGGAGGACTTGCTGCGTTTAAAGAAACAAATGAGAGTATTTTGTGAGATATGTCAACATTACCTGACCAA  
CGTGAATACTACTGTTAAGGAACAGGCCTTCACTATTCTGTGTGATATTTTGATGATCTTCAGCCATCAGATTAT  
GTCAGGAGGGCGTGACATGTTAGAGCCATTAGTGATAACCCCTGATTCTTCATTGCAGTCTGAGTTGCTCAGCTT  
TATTTTGGATCATGTCTTCATTGAACAGGATGATGATAATAATAGTGCAGATGGTCAGCAAGAGGATGAAGCCAG  
TAAAATTGAAGCTCTGCACAAGAGAAGAAATTTACTTGCAGCATTTTGTAAAGCTAATTGTATATACTGTGGTGG  
GATGAATACAGCTGCAGATATCTTCAAACAGTATATGAAGTATTATAATGACTATGGAGATATCATCAAAGAAAC  
AATGAGTAAAAACAAGGCAGATAGACAAAATTCAGTGTGCTAAGACCCCTTATTCTCAGTCTGCAACAGCTTTTTAA  
TGAAATGATACAAGAAAATGGCTATAATTTTGATAGATCATCTCTACATTTAGTGGCATAAAAGAACTTGCTCG  
ACGTTTTGCTTTAACTTTTGGACTTGATCAGTTGAAAACAAGAGAAGCCATTGCCATGCTACACAAAGATGGCAT  
AGAATTTGCTTTTAAAGAGCCTAATCCGCAAGGGGAGAGCCATCCACCTTTAAATTTGGCATTCTTTGATATTCT  
GAGTGAAATTTTCTTCTAACTACTTCGACAAGACAAAAGAACAGTGTATGTTTACTTGGAAAAGTTTCATGACCTT  
TCAGATGTCACCTCCGAAGAGAGGATGTGTGGCTTCCACTGATGTCTTACCGAAATTCCTTTGCTAGCTGGTGGTGA

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**FIGURE 1358B**

TGATGACACCATGTCAGTCATTAGTGGAATCAGCAGCCGGGGGTCAACAGTACGGAGTAAAAATCAAAACCATC  
TACAGGAAAACGGAAAGTGGTTGAGGGCATGCAGCTTTCACCTCACTGAAGAAAGTAGTAGTAGTGACAGTATGTG  
GTTAACGAGAGAACAAACACTGCACACCCCTGTTATGATGCAGACACCACAACCTCACCTCCACTATTATGAGAGA  
GCCCCAAAAGATTACGGCCTGAGGATAGCTTCATGAGTGTTTATCCTAAGCAGACTGAACATCATCAAAACACCTCT  
TGATTATAATCGGCGTGGCACAAGCCTAATGGAAGATGATGAAGAGCCAATTGTGGAAGATGTTATGATGTCCTC  
AGAAGGGAGGATTGAGGATCTTAATGAGGGAATGGATTTTGACACCATGGATATAGATTTGCCACCATCAAAGAA  
CAGACGAGAGAGAACAGAACTGAAGCCTGATTTCTTTGATCCAGCTTCAATTATGGATGAATCAGTTCTTGGAGT  
GTCAATGTTTTTAATACCAGTACACAATTAAATCTGTGGTGAAGTC

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**FIGURE 1359**

MNGHHQONGVENMMLFEVVKMGKSAMQSVVDDWIESYKHDRDIALLDLINFFIQCSGCKGVVTAEMFRHMQNSEI  
IRKMTEEFDEDSGDYPLTMAGPQWKFKSSFCEFIGVLVRQCQYSIIYDEYMMDTVISLLTGLSDSQVRAFRHTS  
TLAAMKLM TALVNVALNLSINMDNTQRQYEAERNKMIGKRANERLELLLQKRKELQENQDEIENMMNAIFKGVFV  
HRYRDAIREIRAICIEEIGIWMKMYSDAFLNDSYLKYVGWTMHDKQGEVRLKCLTALQGLYYNKELNSKLELFTS  
RFKDRIVSMTLDKEYDVAVQAIKLLTLVLQSSEEVLTAEDCENVYHLVYSAHRPVAVAAGEFLYKKLFSRRDPEE  
DGMMKRRGRQGPANANLVKTLVFFFLSESELHEHAAYLVDSMWDCATELLKDWECMNSLLLEEPSGEEALTD RQES  
ALIEIMLCTIRQA AECHPPVGRGTGKRVLTAKKKTQLDDRTKITELFAVALPQLLAKYSVDAEKVTNLLQLPQY  
FDLEIYTTGRLENDLDALLRQIRNIVEKHTD TDVLEACSKTYHALCNEEFTIFNRVDISRSQLIDELADKFNRL  
EDFLQEGEEPDEDDAYQVLSTLKRI TAFHNAHDL SKRDLFACNYKLLKTGIENGDMPEQIVIHALQCTHYVILWQ  
LAKITESSTKEDLLRLKKQMRVFCQICQHYLTNVNTTVKEQAFTILCDILMIFSHQIMSGGRDMLEPLVYTPDS  
SLQSELLSFILDHVFIEQDDDNNSADGQQEDEASKIEALHKRRNLLAAFCKLIVYTVVEMNTAADIFKQYMKYYN  
DYGDI IKETMSKTRQIDKIQCAKTLILSLQQLFNEMIQENGYNFDRSSSTFSGIKELARRFALT FGLDQLKTREA  
IAMLHKDGI EFAFKEPNPQGESHPLNLAFLDILSEFSSKLLRQDKRTVYVYLEKFMTFQMSLRREDVWLP LMSY  
RNSLLAGGDDDTMSVISGISSRGSTVRSKKS KPSTGKRKVVEGMQLSLTESSSSDSMWLTREQTLHTPVM MQTP  
QLTSTIMREPKRLRPEDSFMSVYPKQTEHHQTPLDYNRRGTS L MEDDEEPIVEDVMSSEGRIEDLNEGMDFD TM  
DIDLPPSKNRRRETELKPDFFDPASIMDESVLGVSMF

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**FIGURE 1360**

CTTTTCTCCATCTCAGAACCTTCCTGCCGTCGCGTTTGCACCTCGCTGCTCCAGCCTCTGGGGCGCATTTCCAAC  
CTTCCAGCCTGCGACCTGCGGAGAAAAAAATTACTTATTTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAA  
AATTAAATTTTAACC**ATG**AGGGAAATCGTGACATCCAGGCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTC  
TGGGAGGTGATCAGTGATGAACATGGCATCGACCCACCGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAC  
CGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAAATATGTTTCCTCGTGCCATCCTGGTGGATCTAGAACCT  
GGGACCATGGACTCTGTTTCGCTCAGGTCCCTTTTGCCAGATCTTTAGACCAGACAACCTTTGTATTTGGTCAGTCT  
GGGGCAGGTAACAACCTGGGCCAAAGGCCACTACACAGAGGGCGCCGAGCTGGTTGATTCTGTCTCTGGATGTGGTA  
CGGAAGGAGGCAGAGAGCTGTGACTGCCTGCAGGGCTTCCAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCT  
GGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAATACCCTGATCGCATCATGAATACCTTCAGTGTGGTG  
CCTTCACCCAAAGTGTCTGACACCGTGGTCGAGCCCTACAATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAAT  
ACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTATGATATCTGCTTCCGCACTCTGAAGCTGACCACACCA  
ACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATGAGTGGTGTACACACCTGCCTCCGTTTCCCTGGCCAG  
CTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTCCCTTCCACGTCTCCATTTCTTTATGCCTGGCTTT  
GCCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCTCTCACAGTGCCGGAACCTACCCAGCAGGTCTTCGAT  
GCCAAGGACATGATGGCTGCCTGTGACCCCCGCCACGGCCGATACCTCACCGTGGCTGCTGTCTTCCGTGGTCGG  
ATGTCCATGAAGGAGGTGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTTTGTGGAATGGATC  
CCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCACCTTCATTGGCAAT  
AGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCGGAAGGCCTTCCTC  
CACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCT  
GAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTTCGGTGAGGAGGCCGAAGAGGAGGCC**TAA**

GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCCTTCTCTCCCTCAG  
AATTTGTGTTTGCTGCCTCTATCTTGTGTTTTTGTGTTTTTCTTCTGGGGGGGGTCTAGAACAGTGCCTGGCACAT  
AGTAGGCGCTCAATAAATACTTGTTTGTTGAAAAAAAAAAAAAAAAA

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**FIGURE 1361**

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL  
LISKIREEYPDRIMNTFSVVPSPKVS DTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL  
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDAKDMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGE GMDMEFTEAESNMNDLVSEYQQYQDATAEEEEEDFGEEAE EEA



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**FIGURE 1362**

TGTTCCGCGATCTTCTCAGGCTCTCCTAGCAGCATCCATCGCCGCCACCCTATCTTCACTGGCTTCACCTTCTCC  
TTCTCTCTTCGTTGCTGAGCGACAAGCTTCCTAGCGCTATGACTGTCGTCTCCGTCCCGCAGCGGGAGCCGCTCG  
TCCTGGGTGGCCGCTTGCGCCGCTTGGCTTTTCTCCCGAGGTTACTTTGGGGCCCTCCCGATGGTGACCACGG  
CTCCGCTCCTTTACCCCGGATCCCGGACCCCGGGCACTGCCCCGACCCCTCTTCCTCCCTCATTTCTAGGGG  
GAGATGGCCCGTGTCTGACCCCCAGCCTCGCGCTCCAGCAGCTCTGCCCAACCGCAGCCTCGCCGTGGCGGGAG  
GCACTCCTCGGGCAGCGCCGAAGAAGCGGGCGAAAGAAGGTGCGGGCCAGCCCGCAGGGCAGCTGCCACGCC  
GCTTCCACCAGTACCAGCAGCACC GGCCGAGTCTGGAGGGCGGGCCGGAGCCCCGCGACCGGGCCGAGCGGAGCGC  
AGGAGGTCCCGGGCCCGGGCCGCGCTTGGCCCCGAGTCTGCAGCCGCGAGCCGGCACGGAGGGAGCCAGCCCCG  
ACCTTGCCCCGCTGCGGGCCCGCGCTCCCGGCCAAACCCCCCTCAGGAAAGAGGTTTTTAAATCAAAGATGGGAA  
AATCGGAGAAAATTGCCCTTCCCATGGCCAGCTTGTTTCATGGTATACACTTGTATGAGCAACCAAAGATAAACA  
GACAGAAAAGCAAATATAACTTGCCACTAACCAAGATCACCTCTGCAAAAAGAAATGAAAACAACCTTTTGGCAGG  
ATTCTGTTTCATCTGACAGAATTCAGAAGCAGGAAAAAAGCCTTTTAAATACCGAGAACATTAAAAATTCGC  
ATTTGAAGAAATCAGCATTTCTAACTGAAGTGAGCCAAAAGGAAAATTATGCTGGGGCAAAGTTTAGTGATCCAC  
CTTCTCCTAGTGTTCTTCCAAAGCCTCCTAGTCACTGGATGGGAAGCACTGTTGAAAATTCCAACAAAACAGGG  
AGCTGATGGCAGTACACTTAAAAACCTCCTCAAAGTTCAAACCTTAGATTTCAGATTTTCAGTATGTGTGTAAAAAC  
ATAATTTTTCCCATATCCCTGGACTCTTGAGAAAATTGGTACAGAAATGGAAATTTGCCTTGTTGCAACATACAA  
TTGCAAAAGATGAGTTTTAAAAAATTACATACAAACAGCTTGTTATTATATTTTATATTTTGTAAATACTGTATACC  
ATGTATTATGTGTATATTGTTTACACTTGAGAGGTATATTATAGTTTTGTTATGAAAGTATGTATTTTGCCTGC  
CCACATTGCAGGTGTTTTGTATATATACAATGGATAAATTTTAAAGTGTGTGCTAAGGCACATGGAAGACCGATTT  
TATTTGCACAAGGTACTGAGATTTTTTTCAAGAAACAGCTGTCAAATCTCAAGGTGAAGATCTAAATGTGAACAG  
TTTACTAATGCACTACTGAAGTTTAAATCTGTGGCACAATCAATGTAAGCATGGGGTTTGTCTCTAAATTGAT  
TTGTAATCTGAAATTACTGAACAACCTCCTATTCCCATTTTTTGCTAAACTCAATTTCTGGTTTTGGTATATATCCA  
TTCCAGCTTAATGCCTCTAATTTTAAATGCCAACAAAATTGGTTGTAATCAAATTTTAAATAATAAATAATTGGC  
CCCCCTTTTAAATAGTCTTGACTCTTTGTGTGTGACTGTTTCTCATGTTTGAATGTGTGACTAGGAGATGATT  
TTGTGTGGTTGGATTTTTTTGACTTCTACTTTTACTGGCTGAGTGTGAGCCGCCATGCCTGGCCATAATCTACATT  
TTCTTACCAGGAGCAGCATTGAGGTTTTTGGAGCATAGTACTTGACTACTCTAGAGGCTGAGACGGGAGCATCTCT  
TGAGCCTGAGAAGTGAGATTGCAATTGAGCTAGGATCAGGCCACTGCACTCCAGCCTGGGTAACAGACGCTGTC  
TCAAAAAAAGGCCAAGAGAAAGTAAGGGAGACAGA

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**FIGURE 1363**

MTVVSVPQREPLVLGGRLAPLGFSSRGYFGALPMVTTAPPPLPRIPDPRALPPTLFLPHFLGGDGPCLTPQPRAP  
AALPNRSLAVAGGTPRAAPKKRRKKKVRASPAGQLPSRFHQYQQHRPSLEGGRSPATGPSGAQEVPGPAAALAPS  
PAAAAGTEGASFDLAPLRPAAPGQTPLRKEVLKSKMGKSEKIALPHGQLVHGIHLYEQPKINRQKSKYNLPLTKI  
TSAKRNNENFWQDSVSSDRIQKQEKKPFKNTENIKNSHLKKS AFLTEVSQKENYAGAKFSDPPSPSVLPKPPSHW  
MGSTVENSNNQNRELMVHLLKTLTKVQT

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**FIGURE 1364**

CCGGCTGCTCAGCGCGCTCCGCGGTC**ATG**GAGATCCCCGGGAGCTTGTGCAAGAAAGTCAAGCTGAGCAATAACG  
CGCAGAACTGGGGAATGCAGAGAGCAACCAATGTCACCTACCAAGCCCATCATGTCAGCAGGAACAAGAGAGGTC  
AGGTGGTGGGGACCAGAGGTGGCTTTCGTGGTTGCACAGTTTGGCTAACAGGCTTGTCTGGAGCGGGAAAGACTA  
CTGTGAGCATGGCCTTGGAGGAGTACCTGGTTTTGTCATGGTATTCCATGCTACACTCTGGATGGTGACAATATTC  
GTCAAGGTCTCAATAAAAAATCTTGGCTTTAGTCCTGAAGACAGAGAAGAGAATGTTTCGACGCATCGCAGAAAGTTG  
CTAAACTGTTTGCAGATGCTGGCTTAGTGTGCATCACAAAGTTTCATATCACCTTACACTCAGGATCGCAACAATG  
CAAGGCAAATTCATGAAGGTGCAAGTTTACCGTTTTTTGAAGTATTTGTTGATGCTCCTCTGCATGTTTGTGAAC  
AGAGGGATGTCAAAGGACTCTACAAAAAGCCCCGGGCAGGAGAAATTAAAGGTTTCACTGGGATCGATTCTGAAT  
ATGAAAAGCCAGAGGCCCTGAGTTGGTGTGAAAACAGACTCCTGTGATGTAAATGACTGTGTCCAGCAAGTTG  
TGGAACCTCTACAGGAACGGGATATTGTACCTGTGGATGCATCTTATGAAGTAAAGAAGTATATGTGCCAGAAA  
ATAAACTTCATTGGCAAACAGATGCGGAAACATTACCAGCACTGAAAATTAATAAAGTGGATATGCAGTGGG  
TGCAGGTTTTTGGCAGAAGGTTGGGCAACCCCATGAATGGCTTTATGAGAGAGAGGGAGTACTTGCAGTGCCTTC  
ATTTTGATTGTCTTCTGGATGGAGGTGTCATTAAGTGTGCTAGTACCTATAGTTCTGACTGCGACTCATGAAGATA  
AAGAGAGGCTGGACGGCTGTACAGCATTGCTCTGATGTATGAGGGCCGCCGTGTGGCCATTCTTCGCAATCCAG  
AGTTTTTTTGGACACAGGAAAGAGGAGCGCTGTGCCAGACAGTGGGGAACGACATGCAAGAACCACCCCTATATTA  
AGATGGTGATGGAACAAGGAGATTGGCTGATTGGAGGAGATCTTCAAGTCTTGGATCGAGTTTATTGGAATGATG  
GTCTTGATCAGTATCGTCTTACTCCTACTGAGCTAAAGCAGAAATTTAAAGATATGAATGCTGATGCTGTCTTTG  
CATTTCAACTACGCAACCCAGTGCACAATGGACATGCCCTGTTAATGCAGGATACCCATAAGCAACTTCTAGAGA  
GGGGCTACCGGCGCCCTGTCCTCCTCCTCCACCCTCTGGGTGGCTGGACAAAGGATGACGATGTTCTTTGATGT  
GGCGTATGAAGCAGCATGCTGCAGTGTTGGAGGAAGGAGTTCTGAATCCTGAGACGACAGTGGTGGCCATCTTCC  
CATCTCCCATGATGTATGCTGGACCAACTGAGGTCCAGTGGCATTGCAGAGCACGGATGGTTGCAGGAGCCAAC  
TTTACATTGTTGGACGAGACCCTGCTGGCATGCCTCATCCAGAAACAGGGAAGGATCTTTATGAGCCAAGTCATG  
GTGCCAAAAGTGCTGACGATGGCCCTGGTTTAACTACTTTGGAAATAGTTCCTTTTCGAGTTGCAGCTTACAACA  
AGAAAAAGAAAGCGTATGGACTACTATGACTCTGAACACCATGAAGACTTTGAATTTATTTAGGAACACGAATGC  
GCAAACTTGCTCGAGAAGGCCAGAAACCACCTGAAGGTTTCATGGCTCCCAAGGCTTGGACCGTGCTGACAGAA  
ACTACAAATCCTTGGAGAAAGCT**TAG**GCTGTTAACCCAGTCACTCCACCTTTGACACATTACTAGTAACAAGAGG  
GGACCACATAGTCTCTGTTGGCATTTCTTTGTGGTGTCTGTCTGGACATGCTTCCTAAAAACAGACCATTTTCCT  
TAACTTGATCAGTTTTTGGTCTGCCTTATGAGTTCTGTTTTGAACAAGTGTAACACACTGATGGTTTTAATGTAT  
CTTTTCCACTTATTATAGTTATATTCCTACAATACAATTTTAAATTTGTCTTTTTATATTATTTATGCTTCTG  
TGTATGATTTTTTCAAGCTGTTATATTAGTTGTAACCAGTAGTATTCACATTAAATCTTGCTTTTTTTCCCTT  
AAAAAAAAAAAAAAAA

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**FIGURE 1365**

MEIPGSLCKKVKLSNNAQNWGMQRATNVITYQAAHVSRNKRQVVGTRGGFRGCTVWLTGLSGAGKTTVSMAL E E Y  
LVCHGIPCYTLDGDNIRQGLNKNLGFSPEDREENVRRIA EVAKLFADAGLVCITSFISPYTQDRNNARQIHEGAS  
LPFFE VFVDAPLHVCEQRDVKG LYKKARAGEIKGFTGIDSEYEKPEAPELVLKTDSCDVNDCVQQVVELLQERDI  
VPVDASYEVKELYVPENKLHLAKTDAETLPALKINKVDMQWVQVLAEGWATPLNGFMREREYLQCLHFDCLLDGG  
VINLSVPIVLTATHEDKERLDGCTAFALMYEGRRVAILRNPEFFEHRKEERCARQWGTTCKNHPYIKMVMEQGDW  
LIGGDLQVILDRVYWNDGLDQYRLTPTELKQKFKDMNADAVFAFQLRNPVHNGHALLMQDTHKQLLERGYRREFVLL  
LHPLGGWTKDDD VPLMWRMKQHAAVLEEGVLNPETT VVAIFSPMMYAGPTEVQWHCRARMVAGANFYIVGRDPA  
GMPHPETGKDLYEP SHGAKVLTMAPGLITL EIVPFRVAAYNKKKKRMDYYDSEHHEDFEFISGTRMRKLAREGQK  
PPEGFMAPKAWTVLTEYYKSLEKA

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**FIGURE 1366A**

AGAGATGGGTCTCGCCATCACCATGTTGCCAGTCTGGTCTCCAACCTCTGGGCTCAAGCGATCCTCCTGCCTTG  
GTCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCCCACACCCGGCTGAGTGAGTGGGTCTGAATGGTGACTG  
TTGTTGTCCATAGCCTTCCCCCTGCTTCTGAGAGTGGAGTCCCTCCCCCTCATGTTGGAGACCTCCCAAGGTCCAT  
GTGGTCTATAGGGGCTGTTACAGCTCCCTAGCCCCCTAACGTGTCAGGTAATACTGTATATATTCCATGAAATG  
TGAATAATTAGTTATATAATTCCCTAAGCACTTATTTTAAAAAACAGCAATGTGATGCTTAACTCTTCCACCTCT  
GTTCTGTGCCCCCTTAGAAAACCACTGATAACTCTTTTTTTTTTTTGGAGACGGAGTCTTGCCCTGTGCCCCAGGCT  
GGAGTGTAGTGGCTGATCTCGGCTCGGCTCATTGTAACCTCCGCCTCGGGTTTGAGCGATTCTCCTGCCTCAGC  
CTCCTGAGTAGCTGGGATTATAGGCGTGCACCACCACGCCTGGCTAATTTTTTGTATCTTTAGTAGGGACGGGTT  
TCACCATGTTGGCCAGAGTGGTCTTGAACCTCTGACCTTGTGATCCGCTCGCCTCAGCCTCCCAAAGTGCTGGGA  
TTACAGGCATGAGCCACCGTGCCTGTCTAGAACCACTGGTAACCTCTTAAGTGTGTTCTAAGAACGGAAG  
CATCTGGGCTGGATGGAAATTTAGCATCAAGCAGAGTCCCTTTCTGTTGAGAGTGTGTAAGTGCATAAAGATG  
AAGCAGGCACCAAGAAATCCTCGGCAGTGCCAACGGGAAGACTCCGAGCTGCGAGGTGAACCGCGAGTGTCTGTG  
TTCTCAGCAAAGCCCAGCTCTCCAGTAGCCTGCAGGAGGGGGTGCATGCAGAAGTTTAACGGCCACGACGCCCTG  
CCCTTTATTCCAGCCGACAAGCTGAAAGATCTTACTTCCCGGGTGTTTAATGGAGAACCCGGCGCACACGATGCC  
AAACTGCGTTTTGAGTCCCAGGAAATGAAAGGGATTGGGACACCCCTAACACTACCCCTATCAAAAATGGCTCT  
CCAGAAATTAAGCTGAAATCACCAAAACATACATGAATGGGAAGCCTCTCTTTGAATCTTCCATTTGTGGTGAC  
AGTGCTGCTGATGTGTCTCAGTCAGAAGAAAATGGACAAAACAGAAAACAAGGCGAGAAGGAACAGGAAGAGG  
AGCATAAAATATGACTCCTTGCTGGAGCAGGGCCTTGTGGAAGCAGCTCTTGTGTCTAAGATCTCAAGTCTTCA  
GATAAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCAAACACTGGAAGAGACAAAGACCACCTGTTGAAATACAAC  
GTTGGTGATTGGTGTGGTCCAAAGTGTGCGGTTACCCCTGGTGGCCTTGCGATGGTTTTCTGCAGATCCACTCCTT  
CACAGCTATACCAAACCTTAAAGGTGAGAAAAGAGTGCACGCCAGTATCACGTACAGTTCTTTGGTGACGCCCCA  
GAAAGAGCTTGGATATTTGAGAAGAGCCTCGTAGCTTTTGAAGGAGAAGGACAGTTTGAAAAATTATGCCAGGAA  
AGTGCCAAGCAGGCACCCACGAAAGCTGAGAAAATTAAGCTATTGAAACCAATTTAGGGGAAATTGAGGGCCAG  
TGGGAAATGGGCATTGTTCAAGCAGAAGAAGCTGCAAGCATGTGAGTGGAGGAGCGGAAAGCCAAGTTCACCTTT  
CTCTATGTGGGGGACCAGCTTCATCTCAACCCTCAAGTAGCCAAGGAGGCTGGCATTGCTGCAGAGTCTTTGGGA  
GAAATGGCAGAAATCCTCAGGAGTCAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGAGTGCATTCCC  
ATGAAGAGAAGGCGGAGGGCCAAACTGTGTAGCTCTGCAGAGACCCTGGAGAGTCACCCCGACATAGGGAAAGAGT  
ACTCCTCAAAAGACGGCAGAGGCTGACCCAGAAGAGGAGTAGGGTCTCCTCCTGGGAGGAAGAAGACCACAGTC  
TCCATGCCACGAAGCAGGAAGGGAGATGCAGCATCCAGTTTTTTGGTCTTCTGTCAAAAACACAGGGATGAGGTG  
GTAGCTGAGCACCAGATGCTTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTACAGTGGAGTCTGCTGAGTGAG  
AAGCAGAGAGCAGCTACAACACCAAGTTTGGCCTGGTGGCCCCCTGTCCAGGCTGAAGAAGACTCTGGTAATGTA  
AATGGGAAAAAAGAAACCACACAAGAGGATACAGGACCCTACAGAAGATGCTGAAGCTGAGGACACACCCAGG  
AAAAGACTCAGGACGACAAAGCACAGTCTTCGGAAGAGAGACACAATCACTGACAAAACGGCCAGAACAAGCTCT  
TACAAGGCCATGGAGGCAGCCTCCTCGCTCAAGAGCCAGGCAGCAACGAAAAATCTGTCTGATGCATGTAAACCA  
CTGAAGAAGCGAAATCGGGCTTCCACGGCAGCATCTTCAGCTCTTGGGTTTAGCAAAAGTTCATCTCCTTCTGCA  
TCCTTAACTGAGAATGAGGTCTCGGACAGCCCGGAGACGAGCCCTCGGAGTCCCATAACGAAAGTGCAGACGAA  
ACACAACTGAAGTATCTGTCTCATCAAAAAGTCTGAGCGAGGAGTGAAGTGCACAAAAGGAGTATGTGTGCCAG  
CTGTGTGAGAAGCCGGGCAGCCTCCTGCTCTGTGAAGGACCCTGCTGCGGAGCTTTCCACCTCGCCTGCCTTGGG  
CTTTCCCGGAGGCCAGAAGGGAGGTTACCTGCAGCGAGTGTGCCCTCAGGGATTCACTCATGTTTTCGTGTGTAAA  
GAGAGCAAGACAGATGTTAAGCGCTGTGTGGTAACTCAGTGTGGAAAATTTTACCATGAGGCTTGTGTGAAAAA  
TACCCTCTGACTGTATTTGAGAGCCGAGGTTTCCGCTGCCCCCTCCACAGCTGTGTGAGCTGCCATGCTTCCAAC  
CCTTCAAAACCAAGGCCGTCAAAAGGTAAAATGATGCGGTGTGTCCGCTGCCCCGTTGCCTATCACAGCGGGGAT  
GCTTGTCTGGCAGCAGGATGCTCAGTGATCGCCTCCAACAGCATCATCTGCACTGCCACTTCACTGCTCGGAAG  
GGGAAGCGACACCACGCCACGTCAACGTGAGCTGGTGTCTCGTGTGTCTCAAAGGGGGGAGCCTTCTGTGTGT  
GAGTCTGCCCAGCGGCCTTCCACCCTGACTGCCTGAACATCGAGATGCCTGACGGCAGCTGGTTCTGCAATGAC  
TGCAGGGCTGGGAAGAAGCTGCACTTCCAGGATATCATTGGGTGAAACTTGGGAACCTACAGATGGTGGCCGGCA  
GAAGTTTGCCATCCCAAAAATGTTCCCCCAAATATTAGAAAAATGAAGCACGAGATTGGAGAATTCCCTGTGTTT  
TTCTTTGGGTCTAAAGATTATTACTGGACGCATCAGGCGGAGTGTCCCGTACATGGAGGGGGACCGGGGCAGC

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**FIGURE 1366B**

CGCTACCAGGGGGTCAGAGGGATCGGAAGAGTCTTCAAAAACGCACTGCAAGAAGCTGAAGCTCGTTTTTCGTGAA  
ATTAAGCTTCAGAGGGAAGCCCGAGAAACACAGGAGAGCGAGCGCAAGCCCCACCATAACAAGCACATCAAGGTG  
AATAAGCCTTACGGGAAAGTCCAGATCTACACAGCGGATATTTTCAGAAATCCCTAAGTGCAACTGCAAGCCCACA  
GATGAGAATCCTTGTGGCTTTGATTTCGGAGTGTCTGAACAGGATGCTGATGTTTGTAGTGCCACCCCGCAGGTGTGT  
CCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTCACCAAGCGCCAGTACCCAGAGACCAAGATCATCAAGACAGAT  
GGCAAAGGGTGGGGCCTGGTCGCCAAGAGGGACATCAGAAAGGGAGAATTTGTTAACGAGTACGTTGGGGAGCTG  
ATCGACGAGGAGGAGTGCATGGCGAGAATCAAGCACGCACACGAGAACGACATCACCCACTTCTACATGCTCACT  
ATAGACAAGGACCCTATAATAGACGCTGGCCCCAAAGGAACTACTCTCGATTTATGAATCACAGCTGCCAGCCC  
AACTGTGAGACCCTCAAGTGGACAGTGAATGGGGACACTCGTGTGGGCCTGTTTGCCGTCTGTGACATTCCTGCA  
GGGACGGAGCTGACTTTTAACTACAACCTCGATTGTCTGGGCAATGAAAAACGGTCTGCCGGTGTGGAGCCTCC  
AATTGCAGTGGATTTCCTCGGGGATAGACCAAAGACCTCGACGACCCTTTCATCAGAGGAAAAGGGCAAAAAGACC  
AAGAAGAAAACGAGGCGGCGCAGAGCAAAAGGGGAAGGGAAGAGGCAGTCAGAGGACGAGTGCTTCCGCTGCGGT  
GATGGCGGGCAGCTGGTGTCTGTGACCGCAAGTTCTGCACCAAGGCCTACCACCTGTCTGCTGGGCCTTGGC  
AAGCGGCCCTTCGGGAAGTGGGAATGTCTTGGCATCATTGTGACGTGTGTGGCAAACCTTCGACTTCATTTTGC  
CACCTCTGCCCAATTTCGTTCTGTAAAGGAGCACCAGGACGGGACAGCCTTCAGCTGCACCCCGGACGGGCGGTCC  
TACTGTCTGTGAGCATGACTTAGGGGCGGCATCGGTGAGAAGCACCAGACTGAGAAGCCCCCCCCAGAGCCAGGG  
AAGCCGAAGGGGAAGAGGCGGCGGCGGAGGGCTGGCGGAGAGTCACAGAGGGCAAA**TAG**CGCCAGGCGGCCGCT  
TGGCCGGATCCAGGGGCGGTGCAGGGCGGCCGCGCCCTGCCTGCGGGAGAGGGCGAGCATGAACTGGCCCGGAGGA  
CCCAGCTCGAGCCGCCAGGACACAGACGTACAGGCCTCCTCGGGAGGGAGCGCCTCCCCACCACTGAGCCATCCT  
CAGCAGCGTCCGCTGCGTCTGCACTGATGACCGTCTGAGCCCAGCTCAGCGTTCTTGGACAAACAGCCTCACTCC  
TCAGCGTTACCGCCACACTTGAATTTCTCCGAATGTCAAGGTTCCCTCCCCTCTATTTTTTTAGGTTAAAGTTA  
ATTGGCATATGGAATGTTTTAATCTCCTCTGAAATGTGTAGCGTAGGCTTTTCCCAAGGGTCGCTAGAAAACGCT  
CTTCGCGTTGCCCCCTTTCTGGCTCTCAGCGCCGTCGCCACTCGGGAGAGGCTGGGTGAGGCCCGTGTGAGGACT  
GACCCTGGATTCTTCGAAACTGCCATTGTGATCATTACTCTGCTCTTTGGTGGCTGTATCATTTTTTTGTACTAA  
TGTGAATTGTTCTCAGAAACGCTTCTTTTCCATCCTAGTGAGAAGCTGGCCCTGCAGGTGGTGGCAGCAATGGT  
GTTGTAAGATTTCTCCCGTAGTTTTTTCTCCTCATGGATTGAATGAAATGCCAATAACACGTCCACTTTCAAC  
GTGTAGTTTACGCGGAGCACTTTTCAGGCCTGGCCGGGTGGGCCTACTTCTCACCTGGGCCTATCTTCTGAACT  
CGCTAGGTTCTTATCAACATTTGGGGGATAACTTTGTATATTTTTTTTCAATTTGGCTTTTCTTTACCAGTTTCTGA  
TTTTTATTCTCAATATATTTTTTGCTAAACCTATTTTCACAAATCACCACCGACTGAAGTGTGTGTTTACTGATGCG  
GCCCTGAGCTCCATGGCGAAAGGAGTGACTTTTCAGGGCGTGAGACCGCAGTCTGCTTAGAGCACAGGAAGTGAC  
AACTTAGGGAGCCCCGTAGGGCGCTGCAGGCCCCGGGGACCCAGCACGTGGGTCTAAAGAGAGACGGAGTCTAG  
CTCTCCTGCCACCCAGAGTGGCTTCCATCTCAGCACTCTGTGGGTCTGGTGATGGAAGATGCAGTCTCTGCTGAT  
CACATGTGCCCTCTGCCAGGGCACCTACTGAGAGGTGCGGTCTGGGGGTGGAGGCCTGCCTGGCAGGTGTGCGT  
GCCTCGTACGTGTGTTATGGGCACTGGTCTAGGCCAGGTATGACACCCACTCTCCTGTGAGATTTCACTTTAGTT  
TTTAAAAGGTCCAGTTCTACAGAGTGAGACCTATCTATCTGAGTACTACATATGTTTTAAGACTTGGTCTTTTT  
TTGAGGGATCCTTGACCCTGGGAAGTCTGGAGCACCTGAGAAGGGGGCACCATGTGTGCCTTTGCCACGTGTC  
CTGAGGGGCTGCTTGTCTGGGAGGGAGGGAGAGAACATTCAGCAGCAGGTGCTTTTTTATGGCCTTTTCTTAAAA  
TAACCTAAGGGGGACACATCCATCTTGCAGAGAAGTTTACAGAACTCCCCTTGAAAACCTGCTGCTGAGGCTCCTG  
TTAAATTTTCTGTGGCATCTTTTATGCCTTGGTAAAACTGCAGTGTCTTTGGACCTGAGAGTGGCTACTCCGTG  
GTTTTGTGACCTGTAAGCGTGGGGTTTCAGGGGTGTGTGGCCCTGCAGGGTCCCACGCCTCCCTGAGCACTGACTG  
GAAGTTTCACTGGCTGGTGGCTGTCCCTTCTCCCATCAGGGTCCCCAGCAAAGTTAACTACACAGAGGACCCAGG  
GGAAACGAGCTGTGTAGCCACTGACTTGCTCGCGCGGCCGTGGCCCTGAGGGGCACTCGCCGGTTAAGACAGGG  
TGGGAGTAGTGCTTTCCAGTTCAGACTCTAACTTCTCCCAAAGTGTCCTAAGAAAATACTGGATCGGCTCATAGA  
TTTATGCTCCTTATGATGCCCTAACTTGGAAGGTTGTTCTAGGGACAGGCCGGGCAGTGTCCCCACACACACCTT  
AGAGTCGAAGGCCCCAGGGCCCCGCTGTCACTTGCCCCAAAAGATCCCTTCCGGCAGGTAAGGGACTACCAATGCT  
TACGTCAAAAACAGCAGAATCGGCTTTGCAGTGCATTTGGGGAGCAGATATTAACCTATTTTTTGTGTTGGACAGT  
AGTGAAATCTTGTGATTTTTTAATCGCTTTGATAATACTTCCAAATTTTATGATTTTTCTGAAGGAAATAATGCAA  
ACATTTTAAATATGTTTCTCCCCCTTTCCAAAACCTGTTAACTAATGAGCAAGTAACACTAACTTTGAATGTCT

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**FIGURE 1366C**

CTACAATACCCGTTGATAACTCAGTGGAGCCAGGCTTTGGGGTAGCGGCCCTGAGCTTGCAGGGTTTCTCGCCAC  
TGGGGCTGACCACGCCCCCAGCTGTGACCGTGGGTGTGGCTGGCTCTCGGCCCTGCCCAGCTTTGTTCTGAGGAC  
GTGGTGACTTCCTGAACATCAGCTTCAATCCTCCATCATTAATGTGAAGCAAAACACAAAAACCGCCCCAATCCC  
TCAGGATTCCCTTGGCATCCGAAACCAGCATCTGCACCTAAACCCATACCCACCCGTTGTGCGCCACAGGGGGATG  
TGTCCGAATGGGCAGCTTAAAATGTGGTCACCTGTGGGGGAAACTCTTCAGGCACCTGAAGTGAGAACCCAGCTG  
TCCGTCCCTCAGGCCGGCCTTTCTTCCGGCGACACCCGTCCATGGCTGGCTGGGTCCCCTTCGCAGTGTTTGTCTG  
TCTTGACATCTAAACCCCGGCGTGTGCAGTGCCCATCTTCCAGGACTACCTTATTTTCCAGAATTAAACCTGTTT  
TATAATTCAAGTTAATGCAAATGACTGTGAGTTGCCAAATATCTTGATCCTGTGAGTGTAGTTGATGACTGTTTG  
TLAGTCAGTAGAGTAAAATGCTGTGTCCACGGGGTGTGACAGCCTCACCATACCCTGTTGAGGTGTGAAATGCCC  
CGTCAGAAATTAAATACAACTTAAATGTGCCTATTGGTGTCTAAACTTCATACAATGTAAGGTCAGATTCCCTT  
TAGGAATACTGGGTGCTGTGACCAGGTTTGATAGTTAGACTTAAAACTTGAAATTCACTTTTTGGGGGGAGGGA  
TATACTGAAATAGAGAGTTGAGACTTGCCAGTTGGGGGAAAATAGCATTTAAATGAAAGCTGTGTTTGAAAA  
TTGTGTATGAGTATTTTTGTATTAAAAACATTTTAA

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**FIGURE 1367**

MEFSIKQSPLSVQSVVKCIKMQAPEILGSANGKTPSCEVNRECSVFLSKAQLSSSLQEGVMQKFNGHDALPFI  
ADKLDLTSRVFNGEPGAHDAKLRFESQEMKGIGTPPNTTPIKNGSPEIKLKITKTYMNGKPLFESSICGDSAAD  
VSQSEENGQKPENKARRNRKRSIKYDSLLEQGLVEAALVSKISSPSDKKIPAKKESCPNTGRDKDHLLKYNVGD  
VWSKVSGYPWWPCMVSAADPLLHSYTKLKGQKKSARQYHVQFFGDAPERAWIFEKSLVAFEGEGQFEKLCQESAKQ  
APTAKAEKIKLLKPI SGKLRAQWEMGIVQAEAAASMSVEERKAKFTFLYVGDQLHLNPQVAKEAGIAAESLGEMAE  
SSGVSEEAENPKSVREECIPMKRRRRRAKLCSSAETLESHPDIGKSTPQKTAEADPRRGVGSPPGRKKTIVSMFR  
SRKGDAASQFLVFCQKHRDEVVAEHPDASGEEIEELLRSQWSLLSEKQRARYNTKFALVAPVQAEEDSGNVNGKK  
RNHTKRIQDPTEDAEAEDTPRKRLRTDKHSLRKRDTITDKTARTSSYKAMEAASSLKSQAATKNLSDACKPLKKR  
NRATAASSALGFSSSSPSASLTENEVSDSPGDEPSESPYESADETQTEVSVSSKKSERGVTAKEYVCQLCEK  
PGSLLLCEGPCCGAFHLACLGLSRRPEGRFTCSECASGIHSCFVCKESKTDVKRCVVTQCGKFYHEACVKKYPLT  
VFESRGFRCLHSCVSHASNPSNPRPSKGKMMRCVRCVPAYHSGDACLAAGCSVIASNSI ICTAHFTARKGKRH  
HAHVNVSWCFVCSKGGSLCCESCPAAFHPDCLNIEMPDGSWFCNDCRAGKKLHFQDI IWVKLGNYRWWPAEVCH  
PKNVPPNIQKMKHEIGFPPVFFFGSKDYYWTHQARVFPYMEGDRGSRYQGVRGIGRVFKNALQEAEARFREIKLQ  
REARETQESERKPPPYKHIKVNKPYGKVQIYTADISEIPKCNCKPTDENPCGFDSECLNRMLMFECHPQVCPAGE  
FCQNQCFTKRQYPETKIIKTDGKGWGLVAKRDIRKGEFVNEYVGELIDEEECMARIKHAHENDITHFYMLTIDKD  
RIIDAGPKGNYSRFMNHSCQPNCE TLKWTVNGDTRVGLFAVCDIPAGTELTFNYNLDCLGNEKTVCRCGASNC  
SG FLGDRPKTSTTLSSEEKGKTKKKTRRRRAKGEGRQSEDECFRCGDGGQLVLCDRKFCTKAYHLSCLGLGKRP  
FGKWECPWHHCDVCGKPSTSFCHLCPNSFCKEHQDGTAFSCTPDGRSYCCEHDLGAASVRSTKTEKPPPEPGKPKG  
KRRRRRGWRRVTEGK



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**FIGURE 1368**

GGTCGTTTCGTTGGGCGGTGCTGGTTTTTCGCTCGTCTGACTGCGGCTCTTCCTCGGGCAGCGGAAGCGGCGGGCG  
GTCGGAGAAGTGGCCTAAACTTCGGCGTTGGGTGAAAGAAAATGCGCCGAACCAAGCAGACTGCTCGTAAGTCC  
ACCGGTGGGAAAAGCCCCCGCAAACAGCTGGCCACGAAAGCCGCCAGGAAAAGCGCTCCCTCTACCGGCGGGGTG  
AAGAAGCCTCATCGCTACAGGCCCGGGACCGTGGCGCTTCGAGAGATTCTGTCGTTATCAGAAGTCGACCGAGCTG  
CTCATCCGGAAGCTGCCCTTCCAGAGGTTGGTGAGGGAGATCGCGCAGGATTTCAAACCGACCTGAGGTTTTAG  
AGCGCAGCCATCGGTGCGCTGCAGGAGGCTAGCGAAGCGTACCTGGTGGGTCTGTTTCAAGATACCAACCTGTGT  
GCCATCCACGCTAAGAGAGTCACCATCATGCCCAAAGACATCCAGTTGGCTCGCCGGATACGGGGAGAGAGAGCT  
**TAAG**TGAAGGCAGTTTTTATGGCGTTTTGTAGTAAATTCTGTAAAATACTTTGGTTTTAATTTGTGACTTTTTTTG  
TAAGAAATTGTTTATAATATGTTGCATTTGTACTTAAGTCATTCCATCTTTCACTCAGGATGAATGCGAAAAGTG  
ACTGTTACAGACCTCAGTGATGTGAGCACTGTTGCTCAGGAGTGACAAGTTGCTAATATGCAGAAGGGATGGGT  
GATACTTCTTGCTTCTCATGATGCATGTTTCTGTATGTTAATGACTTGTTGGGTAGCTATTAAGGTACTAGAGTT  
GATAAATGTGTACAGGGTCCTTTTGCAATAAACTGGTTATGACTTGATCCAAGTGTTTAACAATTGGGGCTGTT  
AAGTCTGACCATACTACTGTGATAGAATGTGGGCTTTTTCAAGGGTGAAGATACAAGTCTTAACCACAGTGTA  
ACTTACAGTTTCCTTTAAAAAAGTAAACCTGGCAGCTATAGAATACACTATGTGCATTTATAATAGCT  
ATTTTATATATTGTAGTATCAACATTTTTAAATTAAATGTTTTACATTCACAAGTGGTGGGGAGTCTTGTCATTA  
AGGTGTGTGTAATTTAGAGTCCAGTTGGTTTTCTTCTGACTGCACCTGTTCTCATAGTAGTAAAATGCTATGCGC  
ATTTTATACCTTGCATAAGTCCTCATTCTACCACATGTTAACCCTCTAGCTGATAATGCAAACACTAACTGGGGGA  
TTTTATTTATAAGGGCTCTAGAAAAACGAGTTATTCACACCAGCATCATCTTAACCTAACATTCTGAACTAGTTA  
GTGCAGCTTTTCATTGTGTTGTGTGGTTGGTCTCATAACTAGGTTGAGTTTTTCTCCTCTGCTGAGGAAACAGTA  
CCGAAGTTCTTTTCTTGTTGGCATTGTATTATAAAAACTTGGTGTGGGGGAGGAGCACAAAACCTCCAGCCCACT  
GAACCTCTGCCAATTAAGATGGTGTGGGTAGGTTACATCTGGTTACTGTCCTGGGAAAATCATTTTTATAGAG  
ATGGCCTTCCAAGTGGTTTTAAATTTACTGAAGTTTTTAGGTCAATTATGTATGTTGACTAAATTTACAAATAA  
ACTTGTATATCC

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**FIGURE 1369**

MARTKQTARKSTGGKAPRKQLATKAARKSAPSTGGVKKPHRYRPGTVALREIRRYQKSTELLIRKLPFQRLVREI  
AQDFKTDLRFQSAAIGALQEASEAYLVGLFEDTNLCAIHAKRVTIMPKDIQLARRIRGERA

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**FIGURE 1370**

GAGC**ATG**GAGGCGGGGCGGCTGAGGCAGCTGTAGCGCCGTGGAGGAGGTCGGCTCAGCCGGGCAGTTTGAGGA  
GCTGCTGCGCCTCAAAGCCAAGTCCCTCCTTGTGGTCCATTCTGGGCACCATGGGCTCCACAGTGTGCACAGAT  
GAACGAAGTTATGGCAGAGTTAGCTAAAGAACTCCCTCAAGTTTCATTTGTGAAGTTGGAAGCTGAAGGTGTTCC  
TGAAGTATCTGAAAAATATGAAATTAGCTCTGTTCCTCACTTTTCTGTTTTTCAAGAATTCTCAGAAAAATCGACCG  
ATTAGATGGTGCACATGCCCCAGAGTTGACCAAAAAAGTTTCAGCGACATGCATCTAGTGGCTCCTTCCACCCAG  
CGCTAATGAACATCTTAAAGAAGATCTCAACCTTCGCTTGAAGAAATTGACTCATGCTGCCCCCTGCATGCTGTT  
TATGAAAGGAACTCCTCAAGAACCACGCTGTGGTTTCAGCAAGCAGATGGTGGAAATTCCTTCACAAACATAATAT  
TCAGTTTAGCAGTTTTTGATATCTTCTCAGATGAAGAGGTTTCGACAGGGACTCAAAGCCTATTCCAGTTGGCCTAC  
CTATCCTCAGCTCTATGTTTCTGGAGAGCTCATAGGAGGACTTGATATAATTAAGGAGCTAGAAGCATCTGAAGA  
ACTAGATAACAATTTGTCCCAAAGCTCCCAAATTAGAGGAAAGGCTCAAAGTGCTGACAAATAAAGCTTCTGTGAT  
GCTCTTTATGAAAGGAAACAAACAGGAAGCAAAATGTGGATTTCAGCAAACAAATTCTGGAAATACTAAATAGTAC  
TGGTGTGGAATATGAAACATTCGATATATTGGAGGATGAAGAAGTTCGGCAAGGATTAAAAGCTTACTCAAATTG  
GCCAACATACCCTCAGCTGTATGTGAAAGGGGAGCTGGTGGGAGGATTGGATATTGTGAAGGAACTGAAAGAAAA  
TGGTGAATTGCTGCCTATACTGAGAGGAGAAAAAT**TAA**TAAATCTTAAACTTGGTGCCCACTATTACGGGGTCTG  
GCTCTGTCACCCAGGCTGGAGTGCAGTGGCACGATTATGGCTCATTGCAGCCTCGACTTCTCGGGGCCAAGCGAT  
CCTCCTGCCTCAGCCTTCTGAGTAGCTGGGACCACAGGCGTGCACCACCATGCCCACCTAATTTTTTATTTCTTG  
TAGAGATGAGGTCTCCTGCCTCAGCCTCCCAAAGTGCTGGAATTTACAGGAGTGTGGCTGTGCCCTTGTGATG  
GATGAGGAAAGGTATCCACCTTTCTGAATCAGACACAAGCTGCAGTAGCTTCCTGATGCCTCATTACCAGGATG  
GGTAACTTTAAAGACAAGTTTTATAACTGGCATCCCATCTGGTTTCAGAGTCTTGGGGGCTTTTTTCATACAGCT  
TTGTCTGATATTTAGAGACATTCAGATTTCAGAAAGCCATGAGTTTCAGTTAGCTCATGGGCCGGGCACGTGCACTGA  
CTCACTGGCTGCAGCAGAACACATTGAGGGAGTCTTGGTGCACCTAGGTCACTGTAAGGTTCTAGGGCTGGGAGC  
TGGGATTTGAACCAGGATCTGTCAGCGCAGCCCCAGTGCTGTGCTTGAAGCCTCGTGCCACACTGGCTTTGAGGT  
AGCACGCTGCAAGTTAGTGAGTGGAGTTGCCCAAAGTCTGGGGCTTCTGAAATGACCTGGTATTTTTATGTTCTG  
TTAGAAATGGTGTGGCTTTTCAAAATTAAGTGCCAGGCTGGGCACAATGGCTCGTGCTTGTAATCCCAGCACTTT  
GGGAGGCGGAGGCAGGCGGGTTGCTTGAGCTCCGGAGCTTGAGACCAGCCTGAGCAACATGGCGAAACCTCATAT  
CTACAAAAAATAAAAAATTAAGTGGTCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1371**

MEAGAAEAAVA AVEEVGSAGQFEELLRLKAKSLLVHFWAPWAPQCAQMNEVMAELAKELPQVSFVKLEAEGVPE  
VSEKYEISSVPTFLFFKNSQKIDRLDGAHAPELTKKVQRHASSGSFLPSANEHLKEDLNLRLKKLTHAAPCMLFM  
KGTPQEPRCGFSKQMV EILHKNIQFSSFDIFSDEEVRQGLKAYSSWPTYPQLYVSGELIGGLDIKELEASEEL  
DTICPKAPKLEERLKVLTNKASVMLFMKGNKQEA KCGFSKQILEILNSTGVEYETFDILEDEEVRQGLKAYSNWP  
TYPQLYVKGELVGGLDIVKELKENGELLPILRGEN

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**FIGURE 1372**

TCAGCGGGCGAGTCCCCGGCTCCTCCAGCTCCTTCCTCCTCTTCCTCCTCCTCCTCCACCTCCGGCTTTTGGGGG  
ATCACTGTCCTCTCTCGGCAGCAGAAATCAGCCGGCAGGTGGTCCGCTCCAGCAAGTTCCGCCACGTGTTTGGACA  
GCCGGCCAAGGCCGACCAGTGCTATGAAGATGTGCGCGTCTCACAGACCACCTGGGACAGTGGCTTCTGTGCTGT  
CAACCCTAAGTTTGTGGCCCTGATCTGTGAGGCCAGCGGGGAGGGGCCTTCCTGGTGCTGCCCCCTGGGCAAGAC  
TGGACGTGTGGACAAGAATGCGCCACGGTCTGTGGCCACACAGCCCCCTGTGCTAGACATCGCCTGGTGCCCGCA  
CAATGACAACGTCATTGCCAGTGGCTCCGAGGACTGCACAGTCATGGTGTGGGAGATCCCGGATGGGGGCCTGAT  
GCTGCCCCCTGCGGGAGCCCGTCTGTCACCCCTGGAGGGGCCACACCAAGCGTGTGGGCATTGTGGCCTGGCACACCAC  
AGCCCAGAACGTGCTGCTCAGTGCAGGTTGTGACAACGTGATCATGGTGTGGGACGTGGGCCTGGGGCGGCCAT  
GCTGACACTGGGCCCAGAGGTGCACCCAGACACGATCTACAGTGTGGACTGGAGCCGAGATGGAGGCCTCATTG  
TACCTCCTGCCGTGACAAGCGCGTGCGCATCATCGAGCCCCGAAAGGCACTGTCTAGCTGAGAAGGACCGTCC  
CCACGAGGGGACCCGGCCCGTGCCTGTCAGTGTTCGTGTGCGAGGGGAAGATCCTGACCACGGGCTTCAGCCGCAT  
GAGTGAGCGGCAGGTGGCGCTGTGGGACACAAAGCACCTGGAGGAGCCGCTGTCCCTGCAGGAGCTGGACACCAG  
CAGCGGTGTCCTGCTGCCCTTCTTTGACCCTGACACCAACATCGTCTACCTCTGTGGCAAGGGTGACAGCTCAAT  
CCGGTACTTTGAGATCACTTCCGAGGCCCCCTTTCCTGCACTATCTCTCCATGTTTCAAGTTCCAAGGAGTCCCAGCG  
GGGCATGGGCTACATGCCCAAACGTGGCCTGGAGGTGAACAAGTGTGAGATCGCCAGGTTCTACAAGCTGCACGA  
GCGGAGGTGTGAGCCATTGCCATGACAGTGCCCTCGAAAGTTCGGACCTGTTCCAGGAGGACCTGTACCCACCCAC  
CGCAGGGCCCCGACCCTGCCCTCACGGCTGAGGAGTGGCTGGGGGGTTCGGGATGCTGGGCCCCCTCCTCATCTCCCT  
CAAGGATGGCTACGTACCCCCAAAGAGCCGGGAGCTGAGGGTCAACCGGGCCTGGACACCGGGCGCAGGAGGGC  
AGCACCAGAGGCCAGTGGCACTCCCAGCTCGGATGCCGTGTCTCGGCTGGAGGAGGAGATGCGGAAGCTCCAGGC  
CACGGTGCAGGAGCTCCAGAAGCGCTTGGACAGGCTGGAGGAGACAGTCCAGGCCAAGTAGAGCCCCGCAGGGCC  
TCCAGCAGGGTCAGCCATTACACCCATCCACTCACCTCCCATTCCCAGCCACATGGCAGAGAAAAAAATCATAA  
TAAAATGGCTTTATTTTCTGTTAAAAAAGG

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**FIGURE 1373**

MSRQVVRSSKFRHVFQGPAKADQCYEDVRVSQTTWDSGFCVNPKEFVALICEASGGGAFLVLPLGKTGRVDKNAP  
TVCGHTAPVLDIAWCPHNDNVIASGSEDCVTMVWEIPDGGMLPLREPVTLEGHTKRVGIVAWHTTAQNVLLSA  
GCDNVIMVWDVGTGAAMLTLGPEVHPDTIYSVDWSRDGGGLICTSCRDKRVRIIEPRKGTVVAEKDRPHEGTRPVR  
AVFVSEGKILTTGFSRMSEKQVALWDTKHLEEPSLQELDTSSGVLLPFFDPDTNIVYLCGKGDSSIRYFEITSE  
APFLHYLSMFSSKESQKGMGYMPKRGLEVNKCEIARFYKLHERRCEPIAMTVPRKSDLFQEDLYPPTAGPDPALT  
AEEWLGGRDAGPLLISLKDGYVPPKSRELRVNRGLDTGRRRAAPEASGTPSSDAVSRLEEEMRKLQATVQELQKR  
LDRLEETVQAK

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**FIGURE 1374**

GCTAACCTAGTGCCTATAGCTAAGGCAGGTACCTGCATCCTTGTTTTGTTTAGTGGATCCTCTATCCTTCAGAG  
ACTCTGGAACCCCTGTGGTCTTCTCTTCATCTAATGACCCTGAGGGG**ATG**GAGTTTTCAAGTCCTTCCAGAGAGG  
AATGTCCCAAGCCTTTGAGTAGGGTAAGCATCATGGCTGGCAGCCTCACAGGTTTGCTTCTACTTCAGGCAGTGT  
CGTGGGCATCAGGTGCCCCGCCCTGCATCCCTAAAAGCTTCGGCTACAGCTCGGTGGTGTGTGTCTGCAATGCCA  
CATACTGTGACTCCTTTGACCCCCCGACCTTTCTGCCCCTTGGTACCTTCAGCCGCTATGAGAGTACACGCAGTG  
GGCGACGGATGGAGCTGAGTATGGGGCCCATCCAGGCTAATCACACGGGCACAGGCCTGCTACTGACCCTGCAGC  
CAGAACAGAAGTTCCAGAAAGTGAAGGGATTTGGAGGGGGCCATGACAGATGCTGCTGCTCTCAACATCCTTGCCC  
TGTCACCCCTGCCCAAATTTGCTACTTAAATCGTACTTCTCTGAAGAAGGAATCGGATATAACATCATCCGGG  
TACCCATGGCCAGCTGTGACTTCTCCATCCGCACCTACACCTATGCAGACACCCCTGATGATTTCCAGTTGCACA  
ACTTCAGCCTCCAGAGGAAGATAACCAAGCTCAAGATACCCCTGATTACCGAGCCCTGCAGTTGGCCAGCGTC  
CCGTTTCACTCCTTGCCAGCCCCTGGACATCACCCACTTGCGCTCAAGACCAATGGAGCGGTGAATGGGAAGGGGT  
CACTCAAGGGACAGCCCGGAGACATCTACCACCAGACCTGGGCCAGATACTTTGTGAAGTTCTGGATGCCTATG  
CTGAGCACAAAGTTACAGTTCTGGGCAGTGACAGCTGAAAATGAGCCTTCTGCTGGGCTGTTGAGTGGATAACCCCT  
TCCAGTGCCTGGGCTTCACCCCTGAACATCAGCGAGACTTCATTGCCCGTGACCTAGGTCTACCCCTCGCCAACA  
GTACTCACCACAATGTCCGCCTACTCATGCTGGATGACCAACGCTTGCTGCTGCCCCACTGGGCAAAGGTGGTAC  
TGACAGACCCAGAAGCAGCTAAATATGTTTCATGGCATTGCTGTACATTGGTACCTGGACTTTCTGGCTCCAGCCA  
AAGCCACCCTAGGGGAGACACACCGCCTGTTCCCCAACACCATGCTCTTTGCCTCAGAGGCCTGTGTGGGCTCCA  
AGTTCTGGGAGCAGAGTGTGCGGCTAGGCTCCTGGGATCGAGGGATGCAGTACAGCCACAGCATCATCACGAACC  
TCCTGTACCATGTGGTCGGCTGGACCGACTGGAACCTTGCCCTGAACCCCGAAGGAGGACCCAATTGGGTGCGTA  
ACTTTGTGACAGTCCCATCATTGTAGACATCACCAAGGACACGTTTTACAAACAGCCCATGTTCTACCACCTTG  
GCCACTTCAGCAAGTTTCAATTCCTGAGGGCTCCCAGAGAGTGGGGCTGGTTGCCAGTCAGAAGAACGACCTGGACG  
CAGTGGCACTGATGCATCCCGATGGCTCTGCTGTTGTGGTTCGTGCTAAACCGCTCCTCTAAGGATGTGCCTCTTA  
CCATCAAGGATCCTGCTGTGGGCTTCCTGGAGACAATCTCACCTGGCTACTCCATTACACCTACCTGTGGCATC  
GCCAG**TGA**TGGAGCAGATACTCAAGGAGGCACTGGGCTCAGCCTGGGCATTAAAGGGACAGAGTCAGCTCACACG  
CTGTCTGTGACTAAAGAGGGGCACAGCAGGGCCAGTGTGAGCTTACAGCGACGTAAGCCCAGGGGCAATGGTTTGG  
GTGACTCACTTTCCCCTCTAGGTGGTGCCAGGGCTGGAGGGCCCCTAGAAAAAGATCAGTAAGCCCCAGTGTCCC  
CCCAGCCCCCATGCTTATGTGAACATGCGCTGTGTGCTGCTTGCTTTGGAAACTXGCCTGGGTCCAGGCCCTAGGG  
TGAGCTCACTGTCCGTACAAACACAAGATCAGGGCTGAGGGTAAGGAAAAGAAGAGACTAGGAAAGCTGGGCCCA  
AAACTGGAGACTGTTTGTCTTTCTTAGAGATGCAGAACTGGGCCCGTGGAGCAGCAGTGTGAGCATCAGGGCGGA  
AGCCTTAAAGCAGCAGCGGGTGTGCCAGGCACCCAGATGATTCCTATGGCACCAGCCAGGAAAAATGGCAGCTC  
TTAAAGGAGAAAAATGTTTGAGCCCA

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**FIGURE 1375**

MEFSSPSREECPKPLSRVSIMAGSLTGLLLLQAVSWASGARPCIPKSFGYSSVVCVCNATYCDSDPPTFPALGT  
FSRYESTRSGRRMELSMGPIQANHTGTGTTTTLQPEQKFQKVKGFGGAMTDAAALNILALSPPAQNLLLKSYFSE  
EGIGYNIIRVPMASCDFSIRTYTYADTPDDFQLHNFSLPPEEDTKLKIPLIHRALQLAQRPVSLASPWTSPWLK  
TNGAVNGKGSLSKGQPGDIYHQTWARYFVKFLDAYAEHKLQFWAVTAENEPSAGLLSGYPFQCLGFTPEHQDFIA  
RDLGPTLANSTHHNVRLMLDDQRLLLPHWAKVVLTDPEAAKYVHGIAPHVWYLDLAPAKATLGETHRLFPNTML  
FASEACVGSKFWEQSVRLGSWDRGMQYSHSIITNLLYHVVGWTDWNLALNPEGGPWVRNFVDSPIIIVDITKDTF  
YKQPMFYHLGHFSKFIPSGSRVGLVASQKNDLDAVALMHPDGSVVVVLNRSSKDVPLTIKDPVGFLETISPG  
YSIHTYLWHRQ



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**FIGURE 1376**

GCGCAGGGAGGGGAGACCTTGGCGGACGGCGGAGCCCCAGCGGAGGTGAAAGTATTGGCGGAAAGGAAAAATACAG  
CGGAAAA**ATG**CAGAGCTGGAGTCGTGTGTACTGCTCCTTGGCCAAGAGAGGCCATTTCAATCGAATATCTCATGG  
CCTACAGGGACTTTCTGCAGTGCCTCTGAGAACTTACGCAGATCAGCCGATTGATGCTGATGTAACAGTTATAGG  
TTCTGGTCCTGGAGGATATGTTGCTGCTATTAAAGCTGCCCAGTTAGGCTTCAAGACAGTCTGCATTGAGAAAAA  
TGAAACACTTGGTGGAACATGCTTGAATGTTGGTTGTATTCTTCTAAGGCTTTATTGAACAACCTCTCATTATTA  
CCATATGGCCCATGGAACAGATTTTGCATCTAGAGGAATTGAAATGTCCGAAGTTTCGCTTGAATTTAGACAAGAT  
GATGGAGCAGAAGAGTACTGCAGTAAAAGCTTTAACAGGTGGAATTGCCCACTTATTCAAACAGAATAAGGTTGT  
TCATGTCAATGGATATGGAAAGATAACTGGCAAAAATCAAGTCACCTGCTACGAAAGCTGATGGCGGCACCTCAGGT  
TATTGATACAAAGAACATTCTTATAGCCACGGGTTTCAAGAATTACTCCTTTTCTGGAATCACGATAGATGAAGA  
TACAATAGTGTCTATCTACAGGTGCTTTATCTTTAAAAAAGTTCCAGAAAAGATGGTTGTTATTGGTGCAGGAGT  
AATAGGTGTAGAATTGGGTTTCAAGTTTGGCAAAGACTTGGTGCAGATGTGACAGCAGTTGAATTTTTAGGTCATGT  
AGGTGGAGTTGGAATTGATATGGAGATATCTAAAACTTTCAACGCATCCTTCAAAAACAGGGGTTTAAATTTAA  
ATTGAATACAAAGGTTACTGGTGCTACCAAGAAGTCAGATGGAAAAATTGATGTTTCTATTGAAGCTGCTTCTGG  
TGGTAAAGCTGAAGTTATCACTTGTGATGTACTCTTGGTTTGCATTGGCCGACGACCCTTTACTAAGAATTTGGG  
ACTAGAAGAGCTGGGAATTGAACTAGATCCTAGAGGTAGAATTCCAGTCAATACCAGATTTCAAACATAAAATTC  
AAATATCTATGCCATTGGTGATGTAGTTGCTGGTCCAATGCTGGCTCACAAGCAGAGGATGAAGGCATTATCTG  
TGTTGAAGGAATGGCTGGTGGTGCTGTGCACATTGACTACAATTGTGTGCCATCAGTGATTTACACACACCCTGA  
AGTTGCTTGGGTTGGCAAATCAGAAGAGCAGTTGAAAGAAGAGGGTATTGAGTACAAAGTTGGGAAATTTCCATT  
TGCTGCTAACAGCAGAGCTAAGACAAATGCTGACACAGATGGCATGGTGAAGATCCTTGGGCAGAAATCGACAGA  
CAGAGTACTGGGAGCACATATTCTTGGACCAGGTGCTGGAGAAATGGTAAATGAAGCTGCTCTTGCTTTGGAATA  
TGGAGCATCCTGTGAAGATATAGCTAGAGTCTGTATGCACATCCGACCTTATCAGAAGCTTTTAGAGAAGCAAA  
TCTTGCTGCGTCATTTGGCAAATCAATCAACTTT**TGAA**ATTAGAAGATTATATATTTTTTTTTTCTGAAATTTCTCTG  
GGAGCTTTTGTAGAAGTCACATTCCTGAACAGGATATTCTCACAGCTCCAAGAATTTCTAGGACTGAATTATGAA  
ACTTTTGGAAAGGTATTTAATAGGTTTGGACAAAATGGAATACTCTTATATCTATATTTTACATAAAATTTAGTATT  
TTGTTTCAGTGCACATAATATGTAAGACAAAAAGGACTACTTATTGTAGTCATCCTGGAATATCTCCGTCAACTCA  
TATTTTCATGCTGTTTATGAAAGATTCAATGCCCCCTGAATTTAAATAGCTCTTTTCTCTGATACAGAAAAGTTGA  
ATTTTACATGGCTGGAGCTAGAATTTGATATGTGAACAGTTGTGTTTGAAGCACAGTGATCAAGTTATTTTAAAT  
TTGGTTTTTACATTGGAACAAGTCAGTCATTTCAGATATGATTCAAATGTCTATAAACCAAACTGATGTAAGTAA  
ATGGTCTCTCACTTGTTTTTATTTAACCTCTAAATTCCTTTTCAATTTTAGGGGTAGCATTTGTGTTGAAGAGGTTTAA  
AAGCTTCCATTGTTGTCTGCAACTCTGAAGGGTAATTATATAGTTACCCAAATTAAGAGAGTCTATTTACGGAAC  
TCAAATACGTGGGCATTCAAATGTATTACAGTGGGGAATGAAGATACTGAAATAAACGTCTTAAATATTC

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**FIGURE 1377**

MQSWSRVYCSLAKRGHFNRI SHGLQGLSAVPLRTYADQPIDADVTVIGSGPGGYVAAIKAAQLGFKTVCIKNET  
LGGTCLNVGCIPSKALLNNSHYHMAHGTDFA SRGIEMSEVRLNLDKMMEQKSTAVKALTGGIAHLFKQNKVVHV  
NGYGKITGKNQVTATKADGGTQVIDTKNILIATGSEVTPFPGITIDEDTIVSSTGALS LKKVPEKMVVIGAGVIG  
VELGSVWQRLGADVTAVEFLGHVGGVGIDMEISKNFQRI LQKQGFKFKLNTKVTGATKKS DGKIDVSI EAASGGK  
AEVITCDVLLVCIGRRPFTKNLGLEELGIELDPRGRIPVNTRFQTKIPNIYAIGDVVAGPMLAHKA EDEGIICVE  
GMAGGAVHIDYNCVPSVIYTHPEVAWVGKSEEQLKEEGIEYKVGKFPFAANSRAKTNADTDGMVKILGQKSTDRV  
LGAHILGPGAGEMVNEAALALEYGASCEDIARVCHAHPTLSEAFREANLAASFGKSINF

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**FIGURE 1378**

ATGGCATCCGTTGCAGTTGATCCACAACCGAGTGTGGTGACTCGGGTGGTCAACCTGCCCTTGGTGAGCTCCACG  
TATGACCTCATGTCTCAGCCTATCTCAGTACAAAGGACCAGTATCCCTACCTGAAGTCTGTGTGTGAGATGGCA  
GAGAACGGTGTGAAGACCATCACCTCCGTGGCCATGACCAGTGCTCTGCCCATCATCCAGAAGCTAGAGCCGCAA  
ATTGCAGTTGCCAATACCTATGCCTGTAAGGGGCTAGACAGGATTGAGGAGAGACTGCCTATTCTGAATCAGCCA  
TCAACTCAGATTGTTGCCAATGCCAAAGGCGCTGTGACTGGGGCAAAGATGCTGTGACGACTACTGTGACTGGG  
GCCAAGGATTCTGTGGCCAGCACGATCACAGGGGTGATGGACAAGACCAAAGGGGCAGTGACTGGCAGTGTGGAG  
AAGACCAAGTCTGTGGTTCAGTGGCAGCATTAAACACAGTCTTGGGGAGTCGGATGATGCAGCTCGTGAGCAGTGGC  
GTAGAAAATGCACTCACCAAATCAGAGCTGTTGGTAGAACAGTACCTCCCTCTCACTGAGGAAGAAGCTAGAAAA  
GAAGCAAAAAAAGTTGAAGGATTTGATCTGGTTCAGAAGCCAAGTTATTATGTTAGACTGGGATCCCTGTCTACC  
AAGCTTCACTCCCGTGCCTACCAGCAGGCTCTCAGCAGGGTTAAAGAAGCTAAGCAAAAAAGCCAACAGACCATT  
TCTCAGCTCCATTCTACTGTTACCTGATTGAATTTGCCAGGAAGAATGTGTATAGTGCCAATCAGAAAAATTCAG  
GATGCTCAGGATAAGCTCTACCTCTCATGGGTAGAGTGGAAAAGGAGCATTGGATATGATGATACTGATGAGTCC  
CACTGTGCTGAGCAATTTGAGTCACGTACTCTTGCAATTGCCCGCAACCTGACTCAGCAGCTCCAGACCACGTGC  
CACACCCTCCTGTCCAACATCCAAGGTGTACCACAGAACATCCAAGATCAAGCCAAGCACATGGGGGTGATGGCA  
GGCGACATCTACTCAGTGTTCCGCAATGCTGCCTCCTTTAAAGAAGTGTCTGACAGCCTCCTCACTTCTAGCAAG  
GGGCAGCTGCAGAAAATGAAGGAATCTTTAGATGACGTGATGGATTATCTTGTTAAACAACACGCCCCCTCAACTGG  
CTGGTAGGTCCCTTTTATCCTCAGCTGACTGAGTCTCAGAATGCTCAGGACCAAGGTGCAGAGATGGACAAGAGC  
AGCCAGGAGACCCAGCGATCTGAGCATAAACTCATTAA

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**FIGURE 1379**

MASVAVDPQPSVVTRVVNLPLVSSTYDLMSSAYLSTKDQYPYLKSVCEMAENGVKTTITSVAMTSALPIIQKLEPQ  
IAVANTYACKGLDRIEERLPILNQ PSTQIVANAKGAVTGAKDAVTTT VTGAKDSVASTITGVMDKTKGAVTGSVE  
KTKSVVSGSINTVLGSRMMQLVSSGVENALTKSELLVEQYLPLTEEELEKEAKKVEGFDLVQKPSYYVRLGSLST  
KLHSRAYQQALSRVKEAKQKSQQTISQLHSTVHLIEFARKNVYSANQKIQDAQDKLYLSWVEWKRSIGYDDTDES  
HCAEQFESRTLAIARNLTQQ LQTTCHTLLSNIQGV PQNIQDQAKHMGVMAGDIYSVFRNAASFKEVSDSLLTSSK  
GQLQKMKESLDDVMDYLVNNTPLNWLVGPFYPQLTESQNAQDQGAEMDKSSQETQRSEHKTH

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**FIGURE 1380**

GGCACGAGGGGGAGCCGGGCTGGCAGGAGCAGG**ATG**GCGGCGGCGGCGGCTGCAGGCGAGGCGCGCCGGGTGCTG  
GTGTACGGCGGCAGGGGCGCTCTGGGTTCGATGCGTGCAGGCTTTTCGGGCCCCGCAACTGGTGGGTGGCCAGC  
GTTGATGTGGTGGAGAATGAAGAGGCCAGCGCTAGCATCATTGTTAAAATGACAGACTCGTTCACTGAGCAGGCT  
GACCAGGTGACTGCTGAGGTTGGAAAGCTCTTGGGTGAAGAGAAGGTGGATGCAATTCTTTGCGTTGCTGGAGGA  
TGGGCCGGGGGCAATGCCAAATCCAAGTCTCTCTTTAAGAACTGTGACCTGATGTGGAAGCAGAGCATATGGACA  
TCGACCATCTCCAGCCATCTGGCTACCAAGCATCTCAAGGAAGGAGGCCTCCTGACCTTGGCTGGCGCAAAGGCT  
GCCCTGGATGGGACTCCTGGTATGATCGGGTACGGCATGGCCAAGGGTGCTGTTACCAGCTCTGCCAGAGCCTG  
GCTGGGAAGAACAGCGGCATGCCGCCCCGGGGCAGCCGCCATCGCTGTGCTCCCGGTTACCCTGGATACCCCGATG  
AACAGGAAATCAATGCCTGAGGCTGACTTCAGCTCCTGGACACCCTTAGAATTCCTAGTTGAACTTTCCATGAC  
TGGATCACAGGGAAAAACCGACCGAGCTCAGGAAGCCTAATCCAGGTGGTAACACAGAAGGAAGGACGGAACCTC  
ACCCCAGCATATTTTT**TAG**GCCTCATCTCAGTGCCTATGAGGGGCCTGCCAGAAAAGTCACTAACCTGTCTCAGTG  
TGGCCTTGTCAGCCTTGTTGTTTTCTGTAACCCCTGTTTGTGGTACGAGATAATGAGTCCTATTTTTCTCTCACA  
TAATATGCATTTGCTCTCCTAGGACAGTGTAATACATTTATGTGAAGTAAAGACATGCGAGACTGGTGGCCTGCA  
AATAGCATCCGTCAATCTGTGTAACTGCATAGGGAGGGCTCTGCATAGCACCTGCTATAGCGGTGTCATGTTGG  
ATCGCTTTTGTGACTGTTTCATCTGTCCTTGACAGTGGCTGTCATCTTGACTACTTTGTTGATTTGTTGGTATTGG  
GGACATTTTAAAGGCTGAGTTATTTTTGAATGTCATGTTTATGTCATAGACGTAGTTTTCGCATCCTTGAATTAA  
ACTGCCTTAACTCCTTTTGTGGTATAAGCAAACTCCATGGACTCTGTCCTGGTATCCTTTTCCTGTGTGGTTGC  
CCTGTGTCCTCTGGCCTAGGGTTAAGTGTGCAAGATAACTACTCGTGAGTATTCAGAATGTTGTTCCCTAATAAAT  
GCACCTGTTGTCTGTCTTCTTTAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1381**

MAAAAAAGEARRVLVYGGRGALGSRVQAFRARNWWVASVDVVENEEASASIIVKMTDSFTEQADQVTAEVGKLL  
GEEKVDAILCVAGGWAGGNAKSKSLFKNCDLMWKQSIWTSTISSHLATKHLKEGGLLTLAGAKAALDGTGPMIGY  
GMAKGAVHQLCQSLAGKNSGMPPGAAAI AVL PVTLDTPMNRKSMPEADFSSWTPLEFLVETFDWITGKNRPSSG  
SLIQVVTTEGRTELTPAYF

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**FIGURE 1382**

CGCCCGGGCAGGTCCCAAAATTAGGGGGGAAGAGGAAAAAAAAAGCCAGAAAAAGTTTTCTTTCTGGAGTCCC  
AAACGAGGTGCGGGACGGAAGAGGGGGTGAAGGCCAGAGGCTCGGGGCTTCAAGACCGCTGTCTGGAGTCCCCCT  
TTCCAGGCC**ATG**TCGGGGCCCACCTGGCTGCCCCCGAAGCAGCCGGAGCCCGCCAGAGCCCCCTCAGGGGAGGGCG  
ATCCCCCGCGGCACCCCGGGGCCACCAACGGCCCCACGGAGCAGCACTCCAGCCCCACCCCAGGGTCAATTTTTGC  
CCCCTTCCATCTGAGCAGTGTTACCAGGCCCCAGGGGGACCGGAGGATCGGGGGCCGGCGTGGGTGGGGTCCCAT  
GGAGTACTCCAGCACACGCAGGGGCTCCCTGCAGACAGGGGGGGCCTTCGCCCTGGAAGCCTGGACGCCGAGATA  
GACTTGCTGAGCACCACGCTGGCCAAACTGAATGGGGTTCGGGGTTCATGCGTCACGGCGACCAGACCGACAGGCA  
TATGAGCCCCCGCCACCTCCTGCCTACCGCACGGGCTCCCTGAAGCCAAATCCAGCCTCGCCGCTCCCAGCGTCT  
CCCTATGGGGGCCCACTCCAGCCTCTTACACTACCGCCAGCACCCCGGCTGGCCCAGCCTTCCCCGTGCAAGTG  
AAGGTGGCACAGCCAGTGAGGGGCTGCGGGCCACCCAGGCGGGGAGCCTCTCAGGCTTCTGGGCCCCCTCCCGGGC  
CCCCACTTTCTCTCCCAGGCCGAGGTGAAGTCTGGGGGCCTGGCTATAGGAGCCAGAGAGAGCCAGGGCCAGGG  
GCCAAAGAGGAAGCTGCTGGGGTCTCTGGCCCTGCAGGAAGAGGAAGAGGAGGCGAGCACGGGCCCCAGGTGCCC  
CTGAGCCAGCCTCCAGAGGATGAGCTGGATAGGCTGACGAAGAAGCTGGTTACGACATGAACCACCCGCCCAGC  
GGGGAGTACTTTGGCCAGTGTTGGTGGCTGCGGAGAAGATGTGGTTGGGGATGGGGCTGGGGTTGTGGCCCTTGAT  
CGCGTCTTTACGTGGGCTGCTTTGTATGTTCTACATGCCGGGCCAGCTTCGCGGCCAGCATTTCTACGCCGTG  
GAGAGGAGGGCATATTGCGAGGGCTGCTACGTGGCCACCCTGGAGAAATGTGCCACGTGCTCCCAGCCCATCCTG  
GACCGGATCCTGCGGGCTATGGGGAAGGCCTACCACCCTGGCTGCTTACCTGCGTGGTGTGTACCGCGGCCTC  
GACGGCATCCCCTTACAGTGGATGCTACGAGCCAGATCCACTGTATTGAGGACTTTACAGGAAGTTTGCCCCA  
AGATGCTCAGTGTGCGGTGGGGCCATAATGCCTGAGCCAGGTCAGGAGGAGACTGTGAGAATTGTTGCTCTGGAT  
CGAAGTTTTACATTGGCTGTTACAAGTGCGAGGAGTGTGGGCTGCTGCTCTCCTCTGAGGGCGAGTGTGAGGGC  
TGCTACCCGCTGGATGGGCACATCTTGTGCAAGGCCTGCAGCGCCTGGCGCATCCAGGAGCTCTCAGCCACCGTC  
ACCACTGACTGCT**TGA**GTCTTCTAGAAGTACCTGCTGGGTTCTCAGTTCAGTTCATCCTTTGATTGATCACT  
CTCCCTGACATCCACCTGTATGACTTTGTACCAAATGCTGTCTTCTCTTTCTCCAATCAAGAAATAATAATCCC  
TCGAGTTTACAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1383**

MSGPTWLPPKQPEPARAPQGRAIPRGTPGPPPAHGAALQPHPRVNFCLPSEQCYQAPGGPEDRGPAWVGSHGVL  
QHTQGLPADRGGLRPGSLDAEIDLLSTTLAKLNGGRGHASRRPDRQAYEPPPPPAYRTGSLKPNPASPLPASPYG  
GPTPASYTTASTPAGPAFFVQVKVAQPVRCGPPRRGASQASGPLPGPHFPLPGRGEVWVGPGYRSQREPGPGAKE  
EAAGVSGPAGRGRGGEHGPQVPLSQPPPEDELDRLTKKLVHDMNHPPSGEYFGQCGGCGEDVVG DGAGVVALDRV F  
HVGCFVCSTCRAQLRGQHFYAVERRAYCEGCVATLEKCATCSQPILDRILRAMGKAYHPGCFTCVVCHRGLDGI  
PFTVDATSIHCIEDFHRKFAPRCVCGGAIMPEPGQEETVRIVALDRSFHIGCYKCEECGLLLSSEGECCQGCYP  
LDGHILCKACSAWRIQELSATVTTDC



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**FIGURE 1384**

GGCTTCTTGGCGCG**ATG**AGGTTCCGGTTCTGTGGTGATCTGGACTGTCCCGACTGGGTCTGGCAGAAATCAGCA  
CGCTGGCCAAGATGTCCTCTGTGAAGTTGCGGCTGCTCTGCAGCCAGGTACTAAAGGAGCTGCTGGGACAGGGGA  
TTGATTATGAGAAAGATCCTGAAGCTCACGGCTGACGCCAAGTTTGAGTCAGGCGATGTGAAGGCCACAGTGGCAG  
TGCTGAGTTTTTCATCCTCTCCAGTGCGGGCCAAGCACAGTGTGATGGCGAATCCTTGTCCAGTGAAGTGCAGCAGC  
TGGGGCTGCCCCAAAGAGCACGCGGCCAGCCTGTGCCGCTGTTATGAGGAGAAGCAAAGCCCCCTTGCAGAAAGCACT  
TGCGGGTCTGCAGCCTACGCATGAATAGGTTGGCAGGTGTGGGCTGGCGGGTGGACTACACCCTGAGCTCCAGCC  
TGCTGCAATCCGTGGAAGAGCCCATGGTGCACCTGCGGCTGGAGGTGGCAGCTGCCCCAGGGACCCAGCCCAGC  
CTGTTGCCATGTCCCTCTCAGCAGACAAGTTCCAGGTCCCTCTGGCAGAACTGAAGCAGGCCCAGACCCCTGATGA  
GCTCCCTGGGCT**TGAG**GAGAAGGGTGTTCCAGGCCTGTGTGGAGCCGCCCTGCCCGTATGGAGTCACGCCCTCTGA  
ACTGCTCTTCGGGAGGCAGCCCTGGTTCTAGGATGCTGAGGCCCTGGCCCCGACTCTGGCCTCCAGATCCCCAG  
CTGCCTCACTTCTCTCTTGAGAACTTGGCTCAGGGCTCCTGAGGACCTTTCCAGCATTACCTTCCCTTCCCTTG  
AAAGTAGAGATGAGGTTTCTCCATGTTGGTCAGGCTGGTCTCGAACTCCTGACCTCAGGTGATCCACCCACCTTG  
CCCTCCCAAAGTGCTGGGATTACAGGCGTAAGCCACTGCGCCAGCCACTGCCATCATCTTTAGGAAGAGAGAAG  
TGACCATGCCTGAACCAGTCATTGGCAAGAGGAACGGTGTTATGGACTGAATGTTTCATGTTTCTCCAGAATTCAT  
ATGCTGAAGCCTCTGTCCACACATGCACACCAGATGAGGGCCATGTGCGCACACGAGGTGGCTGTCTACAAGGCC  
AGAAAGAGGGCTGTCAACAGGAACTGCGTCTGCTGGCACCTTGATCTTGAACCTCCAGCCTCCAGAACTGTGAG  
AAAGAAATCTCTATGGTGTAAGCCACTAGTCTGTGGCATTGTTATAGCAGCTCGAGAAGACTAAGGCAGATGGGC  
TTCCAGGACTGGCCCAGACCAGCCAGGGCTCCTTGTAGAAAAGGCTGATGCCAGGGTTGGCACATGGAGGGTACA  
AGGAGGACTCGCCTGGAGTATCTTAAGGAACCTATCGAAGAATAATGGCTTGTTTCCACTGGCCAAAGATGGGACA  
ATTTGAACATCAAAAGAGATACTTACTGACTCCACTCCTGACTTCTGCTTCTGAAAAAATGAAGTAGGTGTTTTT  
CCTATTCTCCCTACTAAGTACAGTTAAACAACCTGGATGTTACATATAAAACAAACAAAAGACTCCGAGCGATG  
GAGAGAAGGCACCCTAGCCTGGCTGGGATCCTCAGGACCTGAGGCTCCACAGAGAGAAATTCCTGGAATCTGGAC  
CCCATGGCCCAGTCAGGTTACACAAAAGTATCATCACAGATCTGTAGAACTATACAAAAGTGCTAACATTTCATG  
ATTAGGGTCTCAGAAGGTAAGGAGGAAGAGAGTGGAATGGAAAAAGTATTCAAAAAATAATCACTAAAGGCCAG  
GTGCAGTGGCCCATGCCTGTAATCCAGCACTTTGGGAGGTGGGACAATTGCTTTAGACCTTGCAACTGGCCTGA  
GCAACACAGGGAGACTCAGTTTCTCCAAAAAATAAAAAATTAGCCGATCATGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1385**

MRFRFCGDLDPCDWVLAETLAKMSSVKLRLLCSQVLKELLGQGIDYEKILKLTADAKFESGDVKATVAVLSFI  
LSSAAKHSVDGESLSSELQQLGLPKEHAASLCRCYEEKQSPLQKHLRVCSLRMNRLAGVGWRVDYTLSSSLLQSV  
EPPMVHLRLEVAAAPGTPAQPVAMSLSADKFQVLLAELKQAQTLMSSLG

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**FIGURE 1386**

CGGACCGTGCAATGGCCCAGCGTAAGAATGCCAAGAGCAGCGGCAACAGCAGCAGCAGCGGCTCCGGCAGCGGTA  
GCACGAGTGCGGGCAGCAGCAGCCCCGGGGCCCGGAGAGAGACAAAGCATGGAGGACACAAGAATGGGAGGAAAG  
GCGGACTCTCAGGAAC TTCATTCTTCACGTGGTTTATGGTGATTGCATTGCTGGGCGTCTGGACATCTGTAGCTG  
TCGTTTGGTTTGATCTTGTTGACTATGAGGAAAGTTCTAGGAAAAGTAGGAATCTATGATGCTGATGGTGATGGAG  
ATTTTGATGTGGATGATGCCAAAGTTTTATTAGGACTTAAAGAGAGATCTACTTCAGAGCCAGCAGTCCCGCCAG  
AAGAGGCTGAGCCACACACTGAGCCCGAGGAGCAGGTTCTGTGGAGGCAGAACCCAGAAATATCGAAGATGAAG  
CAAAAGAACAAATTCAGTCCCTTCTCCATGAAATGGTACACGCAGAACATGTTGAGGGAGAAGACTTGCAACAAG  
AAGATGGACCCACAGGAGAACCACAACAAGAGGATGATGAGTTTCTTATGGCGACTGATGTAGATGATAGATTTG  
AGACCTGGAACCTGAAGTATCTCATGAAGAAACCGAGCATAGTTACCACGTGGAAGAGACAGTTTTCACAAGACT  
GTAATCAGGATATGGAAGAGATGATGTCTGAGCAGGAAAATCCAGATTCCAGTGAACAGTAGTAGAAGATGAAA  
GATTGCACCATGATACAGATGATGTAACATAACCAAGTCTATGAGGAACAAGCAGTATATGAACCTCTAGAAAATG  
AAGGGATAGAAATCACAGAAGTAACTGCTCCCCCTGAGGATAATCCTGTAGAAGATTCACAGGTAATTGTAGAAG  
AAGTAAGCATTTTTCTGTGGAAGAACAGCAGGAAGTACCACCAGATACTTAAAGCTTCAAAAAGACTGCCCTA  
CCACCACAGGAGGACCAGCCTAACCATACGCTCCAAAAGATGGCTGTGATAGATCTTGTGAAGCAATTACTGAGC  
AGATCAAGATCTTTGGGAAGGAACACTAAAGATGTTTTGAATGAATTATAGTCCACTGGCATTTTAGTGTATTTT  
TTTTCTTTTTTACAAACACACATTTCTAAAAATGTCATGTTACATTCTGTCATGTCCCTTTTGATAGCATTAGTG  
GATCCATTGGATTTCTTTTTCTTTTTGTGAGACAGCTTTTAGTCTTACCTGAATTTATGTGTGTTTTCCGACA  
GTGGTTAATAATTATATTGGTGATGTAGCAGCAATTGTGTTGGCAGGGTTTTCATATATTATTAGTAATTAACAC  
TAACTGTTGGACTGACTTGTGTACACTGTGTTAAACATGATTTAAAAGCTATTAAGAGTACTTTGTGTTAGCACT  
CTTAAAAACGCTAACAGAGATCATCATTAGCTGTGAAGATTTGAGTTGTATATACCTGCACTGATATTCTTATCA  
AAAAATTTCTACATTAGCTTTAAGTGTTTCAAGTTAAACACTTTTGAAATTTTTGTAGCTTTTAGCTGATTAATTAGA  
AAAAATTAATATTTTCAAGTAAAGTTTTAAATTATCATTTATTTATTTTTTAAATGAGAGGGGAAAGCTGAAATTC  
CTTGTTAAGACACAAGGAAAAAGAATGGCCCTACTATTATCATGCAAAAATGCTTTGTTGGCACCTCAGATTAAT  
CATATAATAGCTATAGTCTCTTCAGCATTTGTTTAAATTTTAGAAAACCTGTATAAATTACTGGTGCAATACTTA  
AAGATTATTCTGCCTTTGGCTAATTGAGTAATTCCTCCAGCACTAGAGACCGCTCAGTGCTCTTACTAGATGA  
ACTCAGTAACGCCTTGAGCTGGGTTGATTGAGGATGTGTGAAAAGCTCACAGAGCCCGATGCCTGCTGCTATTTT  
ACGGCAATGAGCCTTTTTCTTTCTACACTGAAGATTTTCTTCTTATTTAATGTGGTTTTATTTTGGGCTCAGAAAT  
AATTGCTCTGTTGAAAATAATCCTTTGTGCAAAAAGAAGGTAGCTACCACATCATTTTGAAAGGACCATGAGCAA  
CTATAAGCAAAGCCATAAGAAGTGGTTTGATCGATATATTAGGGGTAGCTCTTGATTTTGTTAACATTAAAGATAA  
GGTGACTTTTTCCCCCTGCTTTTAGGATTAATAATCAAAGATACCTCTATATTTTTATCACTATAGATCATAGTTA  
TTATACAAATGTAGTGAGTCCTGCATGGGTACTCGATGTGTAATGAAACCTGAAATAATAAGATAATAAGAAAAGC  
AATAATTTTCTAAAGCTGTGCTGTGCGGTGATACAGAGACGATACTCAAATTATAATAAACTCTTCATTTTGTGA  
ATTATAGAAGCTACTTTTTATAAAGCCATATTTTTTTAGGGAACTAAGGAGTGACATAGAAGTGAATGAGC  
AAAAGTAAGTTTTGCTGGATTTTTGTAGAAGTCTGGACGTTGAGGATTCATTATGCTGTGGTTAACTTTAAATAT  
TTTTGAATTCCAAATATCTGAATTAATGAGCCTTGTGTTTACAAATATGTGCCATTGTGCAACATCGGTGGATTT  
TCTAAAAATAATGTAAATGTCTTCTATTAAATGTTGAGTGCAATAAAATCCAGAA

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**FIGURE 1387**

MAQRKNAKSSGNSSSSSGSGSGSTSAGSSSPGARRETKHGGHKNGRKGGLSGTSFFTWFMVIALLGVWTSVAVVWF  
DLVDYEEVLGKLGIIYDADGDGDFDVDDAKVLLGLKERSTSEPAVPPEEAEPHTEPEEQVPVEAEPQNIIEDEAKEQ  
IQSLLHEMVHAEHVEGEDLQQEDGPTGEPQQEDDEFMATDVDDRFEFTEPEVSHEETEHSYHVEETVSQDCNQD  
MEEMMSEQENPDSSEPVVEDERLHHDTDVITYQVYEEQAVYEPLENEGIEITEVTAPPEDNPVEDSQVIVEEVS  
FPVEEQQEVPPETNRKTDDPEQKAKVKKKKPKLLNKFDTIKAELDAAEKLKRKGKIEEAVNAFKELVRKYPQSP  
RARYGKAQCEDDLAEKRRSNEVLRGAIETYQEVASLPDVPADLLKLSLKRRSDRQQFLGHMRGSLTLQRLVQLF  
PNDTSLKNDLGVGYLLIGDNDNAKKVYEEVLSVTPNDGFAKVHYGFILKAQNKIAESIPYLKEGIESGDPGTDDG  
RFYFHLGDAMQVRGNKEAYKWYELGHKRGHFASVWQSRSLYNVNLKAQPWWTPKETGYTELVKSLERNWKLIRDE  
GLAVMDKAKGLFLPEDENLREKGDWSQFTLWQQGRNENACKGAPKTCTLLEKFPETTGCRRGQIKYSIMHPGTH  
VWPHTGPTNCRLRMHLGLVIPKEGCKIRCANETKTWEEGKVLIFDDSFHEVWQDASSFRLIFIVDVWHPELTPQ  
QRRSLPAI

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**FIGURE 1388**

AGGCTGTCTGCAGAGATTTGAAAA**ATG**GCAACAAATGAAAGTGTCAGCATCTTTAGTTCAGCATCCTTGGCTGTG  
GAATATGTAGATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTTAAAAATGCTTGGAACATATGTTGAAT  
AATTATACAAAGTTCCAGATTGCAACATGGGGATCCCTTATAGTTCATGAAGCCCTTTATTTCTTATTCTGTTA  
CCTGGATTTTTATTTCAATTTATACCTTATATGAAAAAATACAAAATTCAAAGGATAAGCCAGAGACATGGGAA  
AACCAATGGAAGTGTTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACTAT  
TATTTTACAGAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGC  
TTTGGTTGTGTCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAG  
TATATTCATAAAGTTCAICATGAGTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACT  
CTAATTCCTTGGAACTGGATTTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATTCCTTCTTTGGGCATGGGTG  
ACCATTCGTTTATTAGAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCCTTTAAATCTGATCCCT  
TTCTATGCTGGTTCCTCGGCATCATGATTTCCACCACATGAACCTTCATTGGAACTATGCTTCAACATTTACATGG  
TGGGATCGAATTTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACT  
GAAT**TAA**ATATCTCACGTAAACCTTCCTGAAAGATAAACGTTTTCTGAATTCAGAACTAGTAGCTAACATTGCT  
TCTGGAGAGCAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTC  
CTAGTGGGAACTTTTTCTACTTTACCTACAAGTTCTATATATGTAGAAATGAATAAATATATATTTAAGTACAGT  
TTTCATGAGGAAGTTTTTAAAGACCATGTTCCCTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTAT  
GGCTTTTCTCCCAGTAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCAT  
TTCAGAAAATTCTTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTTTTTTTTTTTTTTGGAGACAAAGCCACA  
CTCTGTCTCCTTGGCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCCAGTTCAAGCAATTC  
TTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCACGCCCAGCTAATTTTTTGTATTTTTGT  
GAGATGGGGTTTTACGATGTTGGCCAGGCTGGTCTCAAACCTTCTGACCTCAAGTGATCTGCCCACCTTGGCCTCC  
CAAAGTGCTGGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTTAGAAATTCACCTA  
AAGATCAAAATATCATGGATTGAACCTCATCAATTGATAGCAGTGAGTGACTGAAGCTTCCAAATCAAGAAAAGC  
CGGCACCAAGAACTTCCATTCTAATCTAGAGCTGACCAGTTTGAGCTGATTCTCTCTTTGAAGAGTCCTTCTTGA  
TTGCAGTGCAGTACTGGCATTCTGAATGGATGTAAGTGGAGTATTTTAGTCTAAAGGCTTTTCAAATTACTTGA  
ATTTTTTTTAAAAATTGAGGAGCTTTATTTCTATTTACCTTCCATTTTTTGTGTGAAAAAAAAAAAAAAAAA

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**FIGURE 1389**

MATNESVSIFSSASLAVEYVDSLLENPLQEPFKNAWNYMLNNTKFIATWGSILIVHEALYFLFCLPGFLFQFI  
PYMKKYKIQKDKPETWENQWKCFKVLLFNHFCIQLPLICGTYYFTEYFNIPYDWERMPRWYFLLARCFGC  
TWHYFLHRLHHKRIYKYIHKVHHEFQAPFGMEAEYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLET  
DVHSGYDIPLNPLNLIPFYAGSRHHDFFHMFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKTE

[illegible]

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**FIGURE 1391**

MSYIPGQFVTAVVQRVEIHKLRQGENLILGFSIGGGIDQDPSQNPFS  
EDKTDKGIYVTRVSEGGPAEIAGLQIGD  
KIMQVNGWDMTMVTHDQARKRLTKRSEEVVRLLVTRQSLQKAVQQSMLS



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**FIGURE 1392**

GCGCCCGCGCCTCGGGCCGTCGGGAGCGGAGCCTCCTCGGGACCAGGACTTCAGGGCCACAGGTGCTGCCAAG**AT**  
**G**CTCCAGGGCACCTGCTCCGTGCTCCTGCTCTGGGGAATCCTGGGGGCCATCCAGGCCCAGCAGCAGGAGGTCAT  
CTCGCCGGACACTACCGAGAGAAAACAACAACTGCCAGAGAAGACCGACTGCCCATCCACGTGTA**CT**TTCGTGCT  
GGACACCTCGGAGAGCGTCACCATGCAGTCCCCACGGACATCCTGCTCTTCCACATGAAGCAGTTCTGTGCCGCA  
GTT**C**ATCAGCCAGCTGCAGAACGAGTTCTACCTGGACCAGGTGGCGCTGAGCTGGCGCTACGGCGGGCCTGCACTT  
CTCTGACCAGGTGGAGGTGTT**C**AGCCCCACGGGACGCGACCGGGCCTCCTT**C**ATCAAGAACCTGCAGGGC**AT**CAG  
CTCCTTCCGCCCGCGGCACCTT**C**ACCGACTGCGCGCTGGCCAACATGACGGAGCAGATCCGGCAGGACCGCAGCAA  
GGGCACCGTCCACTT**C**GCCGTGGTCATCACCGACGGCCACGT**C**ACCGGCAGCCCCCTGCGGGGGCATCAAGCTGCA  
GGCCGAGCGGGCCCGCGAGGAGGGCATCCGGCTCTT**C**GCCGTGGCCCCCAACCAGAACCTGAAGGAGCAGGGCCT  
GCGGGACATCGCCAGCACGCCGCACGAGCTCTACCGCAACGACTACGCCACCATGCTGCCCCACTCCACCGAGAT  
CAACCAGGACACCATCAACCGCATCATCAAGGT**C**ATGAAACACGAAGCCTACGGAGAGTGCTACAAGGTGAGCTG  
CCTGGA**A**ATCCCTGGGCCCTCTGGGCCCCAAGGGCTACCGTGGACAGAAGGGTGCCAAGGGCAACATGGGTGAGCC  
GGGAGAGCCTGGCCAGAAGGGAAGACAGGGAGACCGGGGCATCGAAGGCCCCATTGGATTCC**C**AGGACCCAAGGG  
CGTTCCTGGCTTCAAAGGAGAGAAGGGTGAATTTGGAGCCGACGGT**C**GCAAGGGGGCCCCCTGGCCTGGCTGGCAA  
GAACGGGACCGATGGACAGAAGGGCAAGCTGGGGCGCATCGGACCTCCTGGCTGCAAGGGAGACCTTGGA**A**ACCG  
GGGCCCCGACGGTTACCGGGGGGAAGCAGGGAGTCCAGGGGAGCGAGGAGACCAAGGCGGCAAGGGGGACCTGG  
CCGCCAGGACGCAGAGGGCCCCCGGGAGAAATCGGGGCCAAGGGAAGCAAGGGGTATCAAGGCAACAATGGAGC  
CCCAGGAAGTCTTGGTGTGAAGGAGCCAAGGGCGGGCCTGGGCCCCGCGGACCCAAAGGCGAGCCGGGGCGCAG  
GGGAGACCCCGGCACCAAGGGCAGCCAGGCAGCGATGGCCCCAAGGGGGAGAAGGGGGACCTGGCCCTGAGGG  
CCCCCGCGGCCTGGCTGGAGAGGTTGGCAACAAGGAGCCAAGGGAGACCGAGGCTTGCTGGACCCAGAGGGCC  
CCAGGGAGCTCTTGGGGAGCCCGGAAAGCAGGGATCTCGGGGAGACCCCGGTGATGCAGGACCCCGTGGAGACTC  
AGGACAGCCAGGCCCAAGGGAGACCCCGGCAGGCCTGGATT**C**AGCTACCCAGGACCCCGAGGAGCACCCGGAGA  
AAAAGGCGAGCCCGGCCACGCGGCCCGAGGGAGGCCGAGGCGACTTTGGCTTGAAAGGAGAACTGGGAGGAA  
AGGAGAGAAAGGAGAGCCTGCGGATCCTGGTCCCCCTGGTGAGCCAGGCCCTCGGGGGCCAAGAGGAGTCCAGG  
ACCCGAGGGTGAGCCCGGCCCCCTGGAGACCCCGGTCTACGGAGTGTGACGT**C**ATGACCTACGTGAGGGAGAC  
CTGCGGGTGCTGCGACTGTGAGAAGCGCTGTGGCGCCCTGGACGTGGTCTT**C**GT**C**ATCGACAGCTCCGAGAGCAT  
TGGGTACACCAACTT**C**ACACTGGAGAAGAACTT**C**GT**C**ATCAACGTGGTCAACAGGCTGGGTGCCATCGCTAAGGA  
CCCCAAGTCCGAGACAGGGACGCGTGTGGCGTGGTGCAGTACAGCCACGAGGGCACCTTTGAGGCCATCCAGCT  
GGACGACGAACATATCGACTCCCTGTGAGCTTCAAGGAGGCTGTCAAGAACCTCGAGTGGA**TT**GCGGCGGCAC  
CTGGACACCCTCAGCCCTCAAGTTTGCCTACGACCGCTC**C**ATCAAGGAGAGCCGGCGCCAGAAGACACGTGTGTT  
TGCGGTGGT**C**ATCACGGACGGGCGCCACGACCTCGGGACGATGACCTCAACTTGCGGGCGCTGTGCGATCGCGA  
CGT**C**ACAGTGACGGCCATCGGCATCGGGGACATGTTCCACGAGAAGCACGAGAGTGA**AA**ACCTCTACTCCATCGC  
CTGCGACAAGCCACAGCAGGTGCGCAACATGACGCTGTTCTCCGACCTGGT**C**GCTGAGAAGTT**C**ATCGATGACAT  
GGAGGACGTCTCTGCCCCGACCTCAGATCGTGTGCCAGACCTTCCCTGCCAAACAGAGCTGTCCGTGGCACA  
GTGCACGCAGCGGCCCGTGGACATCGTCTTCTGCTGGACGGCTCCGAGCGGCTGGGTGAGCAGAACTTCCACAA  
GGCCCGCGCTTCTGTGGAGCAGGTGGCGCGGCGGCTGACGCTGGCCCGGAGGGACGACGACCTCTCAACGCACG  
CGTGGCGCTGCTGCAGTTTGGTGGCCCCGGCGAGCAGCAGGTGGCCTTCCCGCTGAGCCACAACCTCACTGCCAT  
CCACGAGGCGCTGGAGACCACACAATACCTGAACTCCTTCTCGCACGTGGGCGCAGGCGTGGTGACGCCATCAA  
TGCCATCGTGCGCAGCCCGCGTGGCGGGGCCCGGAGGCACGCAGAGCTGTCTTCTGTTCTTCTCACGGACGGCGT  
CACGGGCAACGACAGTCTGCACGAGTCGGCGCACTCCATGCGCAAGCAGAACGTGGTACCCACCGTGCTGGCCTT  
GGG**C**AGCGACGTGGACATGGACGTGCTCACCACGCTCAGCCTGGGTGACCGCGCCGCGCGTGTCCACGAGAAGGA  
CTATGACAGCCTGGCGCAACCCGGCTTCTT**C**GACCGCTT**C**ATCCGCTGGATCTGCT**TAG**CGCCCGCCCGGGGCC  
CGCAGT**C**GAGGGTCTGAGCCACCCCGTCCATGGTGCTAAGCGGGCCCGGGTCCCACACGGCCAGCACCGCTGC  
TACTCGGACGACGCCCTGGGCCTGCACCTCTCCAGCTCCTCCCACGGGTCCCCGTAGCCCCGGCCCCCGCCCA  
GCCCCAGGTCTCCCAGGCCCTCCGCAGGCTGCCCCGGCCTCCCTCCCCCTGCAGCCATCCCAAGGCTCCTGACCT  
ACCTGGCCCCCTGAGCTCTGGAGCAAGCCCTGACCCAATAAAGGCTTTGAACCCAAAAAAAAAA

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**FIGURE 1393**

MLQGTCSVLLLWGILGAIQAQQQEVI SPDTTERNNNCPEKTD CPIHVYFVLDTSESVTMQSPTDILLFHKQFVP  
QFISQLQNEFYLDQVALSWRYGGLHFSDQVEVFSPPGSDRASFIKNLQGISSFRGTFTDCALANMTEQIRQDRS  
KGTVHFAVVITDGHVTGSPCGGIKLQAERAREEGIRLFAVAPNQNLEQGLRDIASPHELYRNDYATMLPDSTE  
INQDTINRIIKVMKHEAYGECYKVSCLEIPGPSGPKGYRGQKGAKGNMGEPGEPGQKGRQGDPIEGPIGFFPGPK  
GVPGFKGEKGEFGADGRKGAPGLAGKNGTDGQKGKLGRIGPPGCKGDPGNRGPDPGYPGEAGSPGERGDQGGKGDP  
GRPGRRGPPGEIGAKGSKGYQGNNGAPGSPGVKGAKGGPGPRGPKGEPGRRGDPGTGKSPGSDGPKGEKGDPGPE  
GPRGLAGEVGNKGAKGDRGLPGPRGPQALGEPGKQGSRGDPGDAGPRGDSGQPGPKGDPGRPGFSYPGPRGAPG  
EKGEPPRGPEGGRGDFGLKGEPPGRKGEKGEPADPGPPGEPGPRGPRGVPGPEGEPGPPGDPGLTECDVMTYVRE  
TCGCCDCEKRCGALDVVFVIDSSESIGYTNFTLEKNFVINVNRLGAIADPKSETGTRVGVVQYSHEGTFEAIQ  
LDDEHIDSLSSFKEAVKNLEWIAGGTWTPSALKFAYDRLIKESRRQKTRVFAVVITDGRHDPRDDDLNLRALCDR  
DVTVTAIGIGDMFHEKHESENLYSIACDKPQQVRNMTLFSDLVAEKFIDDMEDVLCPPDPQIVCPDLPCQTELSVA  
QCTQRPVDIVFLLDGSERLGEQNFHKARRFVEQVARRLTLARRDDDPLNARVALLQFGGPGEQQVAFPLSHNLTA  
IHEALETQYLNFSFHVAGVHAINAIVRSRGGARRHAELSFVFLTDGVTGNDSLHESAHSMRKQNVVPTVLA  
LGSDVDMVDLTTLSLGDRAAVFHEKDYDSL AQPGFFDRFIRWIC

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**FIGURE 1394**

CTCTGAGGAGAAGCAGCAGCAAACATTTGCTAGTCAGACAAGTGACAGGGA**ATG**GATTCCAAACAGCAGTGTGTA  
AAGCTAAATGATGGCCACTTCATGCCTGTATTGGGATTTGGCACCTATGCACCTCCAGAGGTTCCGAGAAGTAAA  
GCTTTGGAGGTCACAAAATTAGCAATAGAAGCTGGGTTCGCCATATAGATTCTGCTCATTTATACAATAATGAG  
GAGCAGGTTGGACTGGCCATCCGAAGCAAGATTGCAGATGGCAGTGTGAAGAGAGAAGACATATTCTACACTTCA  
AAGCTTTGGTCCACTTTTCATCGACCAGAGTTGGTCCGACCAGCCTTGGA<sup>1565</sup>AAACTCACTGAAAAAAGCTCAATTG  
GACTATGTTGACCTCTATCTTATTTCATTCTCCAATGTCTCTAAAGCCAGGTGAGGAACTTTCACCAACAGATGAA  
AATGGAAAAGTAATATTTGACATAGTGGATCTCTGTACCACCTGGGAGGCCATGGAGAAGTGTAAGGATGCAGGA  
TTGGCCAAGTCCATTGGGGTGTCAAAC<sup>1570</sup>TTCAACCGCAGGCAGCTGGAGATGATCCTCAACAAGCCAGGACTCAAG  
TACAAGCCTGTCTGCAACCAGGTAGAATGTCATCCGTATTTCAACCGGAGTAAATTGCTAGATTTCTGCAAGTCG  
AAAGATATTGTTCTGGTTGCCTATAGTGCTCTGGGATCTCAACGAGACAAACGATGGGTGGACCCGAAC<sup>1575</sup>TCCCCG  
GTGCTCTTGAGGACCCAGTCCTTTGTGCCTTGGCA<sup>1580</sup>AAAAAGCACAAGCGAACCCAGCCCTGATTGCCCTGCGC  
TACCAGCTGCAGCGTGGGGTTGTGGTCCTGGCCAAGAGCTACAATGAGCAGCGCATCAGACAGAACGTGCAGGTT  
TTTGAGTTCCAGTTGACTGCAGAGGACATGAAAGCCATAGATGGCCTAGACAGAAATCTCCACTATTTTAACAGT  
GATAGTTTTGCTAGCCACCCTAATTATCCATATTCAGATGAATAT**TAA**CATGGAGAGCTTTGCCTGATGTCTACC  
AGAAGCCCTGTGTGTGGATGGTGACGCAGAGGACGTCTCTATGCCGGTGACTGGACATATCACCTCTACTTAAAT  
CCGTCCTGTTTAGCGACTTCAGTCAACTACAGCTGAGTCCATAGGCCAGAAAGACAATAAATTTTTATCATTTTG  
AAAT

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**FIGURE 1395**

MDSKQQCVKLNDGHFMPVLGFGTYAPPEVPRSKALEVTKLAIEAGFRHIDSAHLYNNEEQVGLAIRSKIADGSVK  
REDIFYTSKLWSTFHRPELVRPALENSLKKAQLDYVDLYLIHSPMSLKPGEELSPTDENGKVIFDIVDLCTTWEA  
MEKCKDAGLAKSIGVSNFNRRQLEMILNKPGLKYKPCNQVECHPYFNRSKLDDFCKSKDIVLVAYSALGSQRDK  
RWVDPNSPVLLEDPVLCALAKKHKRTPALIALRYQLQRGVVVLAKSYNEQRIRQNVQVFEFQLTAEDMKAIDGLD  
RNLHYFNSDSFASHPNYPYSDEY

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**FIGURE 1396A**

GCGGGGACGCGACGAGCCCGGGTCGCCGTTGGCAGCAGCAGCAGCAACACCAGCAGCAGCAGCAGCCCCGGCGG  
CGGCGCGGAACCCCGAGCGCCCGGGCGCACCCCGGCTTCCCGGAGCGCGACGCGGGCGGCAGCAGCCCCGGTGCGG  
CCGCGCGCGCCTTAGGCTCGGCCCCCGGGCTCGGGGACCCCGACTCCCGGGCCAGCGAGCGCGTCCCCGGCGGC  
GCCCCGAGAGCCCGAGGAGGCAGCGGCCCGCAGAGCCCCGGGGGAGGGGGGCGGCCACCGCCCCGCGCCGGGCATCCTC  
AGGAGCCCCAGAGCGCGGAGGGCGCGGCCGCCGAGCGGTGCTGGCCCCCGCGGGCTCCCCGGACCTTCCCCAC  
CGCTGGGCCCCGAGGGACGCGTGATCGGGCGGGCGGCCGGGCGCAAGGGTGGGAGGGAGCCGCCCCCCGCCCCGCGC  
CCCCCTCGGCCCTCGCCCCAAACCCCTGGGCGCCGGGCCCCGGGCCGCGCGGCCTGAAGCGCCCCGCGATGGCGAGC  
CCGCCGCGGCACGGGCCGCCCGGGCCGGCGAGCGGAGACGGCCCCAACCTCAACAACAACAACAACAACAAC  
AACCACAGCGTGCGCAAGTGCGGCTACCTGCGCAACGAAGAGCATGGCCACAAGCGCTTCTTCGTGCTGCGCGGA  
CCCGGCGCGGGCGGCAGCAGGGCGACGGCGGGCGGGGGTTCGGCGCCGCAACCGCCGCGGCTCGAGTACTACGAG  
AGCGAGAAAAAGTGGCGGAGCAAGGCAGGCGCGCCGAAACGGGTGATCGCTCTCGACTGCTGCCTGAACATCAAC  
AAGCGCGCCGACGCCAAGCACAAGTACCTGATCGCCCTCTACACCAAGGACGAGTACTTCGCCGTGGCCGCCGAG  
AACGAGCAGGAGCAGGAGGGCTGGTACCGCGCGCTACCGACCTGGTCAGCGAGGGCCGCGCGGCCGCCGAGAC  
GCGCCCCCGCGCGCCGCGCCCGCGCTCCTGCAGCGCCTCCCTGCCCGGCGCCCTGGGCGGCTCTGCCGGCGCC  
GCCGGGGCCGAGGACAGCTACGGGCTGGTGGCTCCCGCCACGGCCGCTACCGTGAGGTGTGGCAGGTGAACCTG  
AAGCCCAAGGTCTGGGCCAGAGCAAGAACCTGACGGGGGTGTACCGTCTGTGCCTGTCTGCGCGCACCATCGGC  
TTCGTGAAGCTCAACTGCGAGCAGCCGTGCGTGACGCTGCAGCTCATGAACATCCGCCGTGCGGCCACTCGGAC  
AGCTTCTTCTTCATCGAGGTGGGCGCTCGGCCGTACAGGCCCGGCGAGCTGTGGATGCAGGCGGACGACTCG  
GTGGTGGCGCAGAATCCACGAGACCATCCTGGAGGCCATGAAGGCGCTCAAGGAGCTCTTCGAGTTCCGGCCG  
CGCAGTAAGAGCCAATCGTCGGGGTCGTGGGCCACGACCCCATCAGCGTCCCCGGCGCGCGCCGCCACCACCAC  
CTGGTCAACCTGCCCCCAGCCAGACGGGCCTGGTGCGCCGCTCGCGCACCGACAGCCTGGCCGCCACCCGCCG  
GCGGCCAAGTGAGCTCGTGCCGGGTGCGCACCGCCAGCGAGGGCGACGGCGGCCGGGCTGCGGGAGCGGCGGCC  
GCGGCGCAGAGGTGGTGTGGTGGCTGGGAGCCCCCTGAGCCCCGGGCCGGTGCGCGCGCCCCCTGAGCCGCTCG  
CACACCCTGAGCGGCGGCTGCGGCGGCCGCGGGAGCAAGGTGGCGCTGCTGCCGGCAGGGGGCGCGCTGCAACAC  
AGCCGCTCCATGTCCATGCCCGTGGCGCACTCGCCGCCCGCCGCCACCAGCCCCGGCTCCCTGTCTCGTCCAGCAGC  
GGCCACGGCTCGGGCTCCTACCCGCCGCCGCCCGGCCCGCACCCGCCTCTGCCGCATCCGCTGCACCAGGCCCC  
GGCCAGCGGCCCTCCAGCGGCAGCGCCTCCGCCCTCGGGCTCCCCAGCGACCCCGGCTTCATGTCCCTGGACGAG  
TACGGCTCCAGCCCAGGCGACCTGCGCGCCTTCTGCAGCCACCGAAGCAACACGCCCCAGTCCATCGCGGAGACG  
CCCCCGGCCCGAGACGGCGGCGGCGGCGGTGAGTTCTACGGGTACATGACCATGGACAGGCCCCCTGAGCCACTGT  
GGCCGCTCCTACCGCCGGGTCTCGGGGGACGCGGCCCAGGACCTGGACCGAGGGCTGCGCAAGAGGACCTACTCC  
CTGACCACGCCAGCCCGGCGAGCGGCCGCTGCCCGTCCCTGCCCCGCGTCTCTCCCAAGGTGGCCTACCACCCC  
TACCCAGAGGACTACGGAGACATCGAGATCGGCTCCACAGGAGCTCCAGCAGCAACCTGGGGGCGAGCAGCGGC  
TACATGCCCATGACGCCCCGCGCGGCCCTTCGCGGGCAGTGGGAGCGGCAGCTGCAGGAGCGACGACTACATGCC  
ATGAGCCCCGCCAGCGTGTCCGCCCCCAAGCAGATCTTGACGCCAGGGCCGCCGCCGCCGCCGCCGCCGCTG  
CCTTCTGCGGGGCTGCGGGGCCAGCACCCACCTCTGCGGCGGGCAGGACATTCCCGGCGAGCGGGGGCGGCTAC  
AAGGCCAGCTCGCCCGCCGAGAGCTCCCCGAGGACAGTGGGTACATGCGCATGTGGTGGCGTTCCAAGCTGTCC  
ATGGAGCATGCAGATGGCAAGCTGCTGCCCAACGGGGACTACCTCAACGTGTCCCCAGCGACGCGGTACCCAG  
GGCACCCCGCCGACTTCTTCTCCGAGCCCTGCACCCCGGCGGGGAGCGCTCAGGGGCGTTCCCGGCTGCTGC  
TACAGTCTTTGCCCGCTCCTACAAGGCCCTACACCTGTGGCGGGACAGCGACCACTACGTGCTCATGAGC  
TCCCCGTGGGGCGCATCCTGGAGGAGGAGCGTCTGGAGCCTCAGGCCACGCCAGGGGCCAGCCAGGCGGCCAGC  
GCCTTCGGGGCGGCCCCACGCGAGCCCCCTACCCCTGTAGTGCTTCGCCCGTGCGGCGTAGCGGCCGCCGGTCA  
GGTTTCTTGGGCCAGCGCGGCCGGGCGGTGAGGCCACGCGCCTGTCCCTGGAGGGGCTGCCAGCCTGCCAGC  
ATGCACGAGTACCCACTGCCACCGGAGCCCAAGAGCCCCGGCGAGTACATCAACATCGACTTTGGCGAGCCCCGG  
GCCCCCTGTGCGCGCCCGCGCCTCCCCTGCTGGCGTGGCGGCCCTCGTCCTCCTCGCTCTTGTCCGCCAGCAGC  
CCGGCCTCGTGCCTGGGCTCAGGCACCCCGGGCACAGCAGCGACAGCCGGCAGCGGTCTCCGCTCTCCGACTAC  
ATGAACCTCGACTTCAGCTCCCCCAAGTCTCCTAAGCCGGGCGCCCCGAGCGGCCACCCCGTGGGCTCCTTGGAC  
GGCCTCCTGTCCCCCGAGGCCTCCTCCCGTATCCGCCGTTGCCCGCGCTCCGTCCGCTCCCCGTGCTCGTCT

CTGACAGCCGCGCCACACCGCCGCGCCGCGGGGAGCTGTACCGCCTGCCCCCGCCTCGGCCGTTGCCACCGCC  
CAGGGCCCGGGCGCCGCTCATCGTTGTCTCGGACACCGGGACAATGGTGA CTACACCGAGATGGCTTTTGGT  
GTGGCCGCCACCCCGCCGCAACCTATCGCGGCCCCCCCGAAGCCAGAAGCTGCCCGCGTGGCCAGCCCCGACGTGC  
GGCGTGAAGAGGCTGAGCCTCATGGAGCAGGTGTCTGGGAGTCGAGGCCTTCTCTGAGGCCAGCCAGCCCCGGAC  
CCCCACCGCGGGCGCCAAGGTTCATCCGCGCAGACCCGAGGGGGGCGCCGCGCCGCACAGTTCCGAGACCTTCTCC  
TCCACCACGACGGTCACCCCGTGTCCCCGTCTTCGCCCACACCCCAAGCGCCACAACCTCGGCCTCCGTGGAA  
AATGTCTCTCTCAGGAAAAAGCAGCGAGGGGCGGCGTGGGTGTCTGGCCCTGGAGGGGGCGACGAGCCGCCACCTCC  
CCACGACAGTTGCAGCCGGCGCCCCCTTTGGCACCGCAGGGCGGCGCTGGACCCCGGGTCAGCCCCGGGGGCTTG  
GTCGGTTGTCTCTGGGAGCGGTGGATCGCCCATGCGCAGAGAGACCTCTGCCGCTTCCAGAATGGTCTCAACTAC  
ATCGCCATCGACGTGAGGGAGGAGCCCGGGCTGCCACCCAGCCGAGCCGCCGCGCCGCGCTTCTCTAGCCG  
GGAGACAAGAGCTCTTGGGGCCGGACCCGAAGCCTCGGGGGTCTCATCAGCGCTGTGGGCGTCGGCAGCACCGGC  
GGCGGGTGTGGGGGGGCGGGTCCCGGTGCCCTGCCCCCTGCCAACACCTACGCCAGCATTGACTTCTTGTCCCA  
CACTTGAAGGAGGCCACCATCGTGAAAAGAGTGAAGATCTGTCTGGCTTTATCACCAGGATGTCACATGTCAGAGA  
ATATCATTAAAAGAAGACGCTCAGCGCTGTTTCAGCCCGAAGCTGCTTGCAGTTTTCTTTTGGATCTGAGCAATG  
ACTGTGTTTTGGAAACATCTGTGGACTCTGATAGATGGGGCACAAAGGCAAGGTACCTGCCTCTTTCCCTTGT  
TCCCGGATGGGCATTTCATTGTGCTGTTTGCCTTTTGTGTTTTGTTTTGTTTTAACAAAATTAGCTGAAGAAGTT  
ATTCTCAAGAAAATTGGATGTTTTTATTGGCCTTCTTAAATTGTGGCCAGTGTCTTTTAAATTTCTTCTTTTCT  
CTTTTGGCAAAGCAGATATAACCCTCAGCATGCTAGGAGAGTGCACCCGTACCTATGGAAGTGGTAAAATCTGGT  
ATTTACTGGCTTACACTCAAAACGACCACAGTCTTACCTCAGTTCAAGGTAAAGCCGGATTTCCGTGGCGGGGT  
CCACAGGACCTCCTGTAGTAGCCCTGCGCTGTGTGCTGAGCGCGTCTCGCCTTATTTAAATGGTCCAGTAG  
ACAGCTGCTTGTGGATTCCAGTGCAGGTACCTGCGATGTTTACGTCCACACCGAGCCAGTGTGGGACTGACAT  
TTCTCAATGGAAGTGAAATTTGGGATTGGACTTTGAAGACGATTACTAAATAATAATTATTATATGTAAGTGAAG  
CAACCTACTTTTTGAAAATCAACTGTATTGGGTAGTGGGAGGTGGGAGGGAAGGGCTTTGGGAAGGGGATGAATAT  
CTCTTTTTTACCTTTTAAACAGACTTGTTTAACTTCTCTCGATGTAGATGTTTATGTAGGTACTTCACATTGCAAACGC  
CTTTTATTCTATTTACAAGCTCAGATGTCTCTGCTCTCCTGAATCTTGGGCATGCCTTTCTGTAACCAAAAATCC  
CTGTAGGCGTGCTAGCAATTCCAGGGTGGTCCGGGTTTGGCAGATTTGATTTTTTAAAAATGTATTATCTTTAAT  
AAAAATGTTATTATGTCAACCAGTGAGGCTGCCCTGAACAAAAAAGCAAAAAAGAAAAAAGGAAAGA  
AAGAACTGATAAAAAGAGGCATCCAGCCCTATGTTATTGATGGAAGAAAGAAAGAAAGCAATCTCGCA  
GTACATGTTACTTGTGCAAAAAATTCCGGACAAGACTACCCCTGTTTTATGTTTTAGTATTCTGAAAATACCAG  
TGTGTGGCAGTTCTCGCAGATGTTACCTAAAAGTCTGAACTTGACCGGCAGAATGTTCTGCCGTTTTCTGCTCC  
CTCGACACTTGATTGGAGGGCTGTGACCTCTCCTCCCGTGGGGGCTTCCCAGTGCCTATCTTCTCTGATAGTC  
ATGGAGAGGTTACACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTAGAAAAATATATA  
TAAATATATAATAGATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTTAGAGGAAGACCAAAA  
AATTCAATGTCTTAAAAATATATTTAATGGCAATGCAAAAAGTCTTCTGCTTCCGTGCTGAACTTTAGAACAGAG  
GATTGTATTGCAAGACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTTTAAGGTTTTACTTTTCTGAAATTA  
TACATCACAGCAGTGCATAGGCCATATAATGTTAGCTGGAAGGTCAATTTTCAGTGTATGATATACTTTATTAAGA  
TGTATAAAACATCCTGAAGTTTTTATTTAGTTTTGGGAATAGGCATCAGTGGGTGGTATTTGCTTTGTAAGTCCC  
CCCAGGTACGATAGGGACTGAATATGGACCCTGCTGAAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATC  
CGTAGAGTAGTCATGACACTATACAGATGGTTTCGTGTTTACTACTGCAGCTTAAACAAGCAAAATACACAGATGA  
TAATATGCTAAATTTTCTCTATCCTGTACATTTTACAAAAAGGCATATGCAATATTTACATTTTTAATTTAGTT  
TACAGAATGGAACCAAAATGTATAAATGTTATGTTTGCTAAAACTTACAAATGTATATTGGGTCTTTGTACATTT  
TGCTGACTTACCTTAAATTTAAATATTTTTTGTCTATATAAACTTTAACAGTTATTAAACAGTGTTCCTTTT  
GGGTACGTATTGTTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTT  
ATCTTGCTCTGTCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGG  
ACTAGAATAGTGCATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAA  
GTACATTATTTATGAAATGAA

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**FIGURE 1397**

MASPPRHGPPGPASGDGPNLNNNNNNNNNHSVRKCGYL RNEEHGHRFFVLRGPGAGGDEATAGGGSAPQPPRLE  
YYESEKKWRSKAGAPKRVIALDCCLNINKRADAKHKYLI ALYTKDEYFAVA AENEQE QEGWYRALTDLVSEGRAA  
AGDAPPAAAPAASCSASLPGALGGSAGAAGAEDSYGLVAPATAAYREVWQVNLKPKGLGQSKNLTGVYRLCLSAR  
TIGFVKLNCEQPSVTLQLMNIRRCGHSDSFFFIEVGRSAVTGPGELWMQADDSVVAQNIHETILEAMKALKELFE  
FRPRSKSQSSGSSATHPI SVPGARRHHHLVNLPPSQTGLVRRSRTDSL AATPPAAKCSSCRVRTASEGDGGRAAG  
AAAAAQRLVSVAGSPLSPGPVRAPLSRSHTL SGGCGGRGSKVALLPAGGALQH SRSMSMPVAHSPPAATSPGSL S  
SSSGHSGSYPPPPGPHPLPHPLHHGPGQRPSSGSASASGSPSDPGFMSLDEYGS SPGDLRAFCSHRSNTPESI  
AETPPARDGGGGGEFYGYMTMDRPLSHCGRSYRRVSGDAAQDLDRGLRKRTYSLTTPARQRPVPQPSSASLDEYT  
LMRATFSGSAGRLCPSCPASSPKVAYHPYPEDYGDIEIGSHRSSSSNLGADDGYMPMTPGA AFAGSGSGSCRSD D  
YMPMSPASVSAPKQILQPRAAAAAAAVPSAGPAGPAP TSAAGRTFPASGGGYKASSPAESSPEDSGYMRMWCGS  
KLSMEHADGKLLPNGDYLVNPSDAVTTGTPPDFS AALHPGGEPLRGVPGCCYSSLPRSYKAPYTCGGDS DQYV  
LMS SPVGRILEERLEPQATPGPSQAASAFGAGPTQPPHPVVPSPVRRSGRRSGFLGQRGRAVRP TRLSLEGLPS  
LPSMHEYPLPPEPKSPGEYINIDFGEPGARLSPPAPPLLA SAASSSSLLSASSPASSLGSGTPTGSSDSRQR SPL  
SDYMNLD FSSPKSPKPGAPSGHPVGS LDGLLSPEASSPYPLPPRPSASPSSSLQPPPPPPAPGELYRLPPASAV  
ATAQGPGAASSLSSDTGDNGDYTEMAFGVAATPPQP I AAPPKPEAA RVASPTSGVKRLSLMEQVSGVEAFLQASQ  
PPDPHRGAKVIRADPQGRRRHSSSETFSSTTTVTFVSPSFAHNPKRHNSASVENVSLRKSSEGGVG VGGGDEP  
PTSPRQLQ PAPPLAPQGRPWTPGQPGGLVGCPSGGGSPMRRETSAGFQNGLN YIAIDVREEPGLPPQPQPPPPPL  
PQPGDKSSWGRTRSLGGLISAVGVGSTGGGCGGPGPGALPPANTYASIDFLSHHLKEATIVKE

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**FIGURE 1398A**

GGGTGATTGAGCGCCCGGCGAGGCGGAACGGGCCGCAAGAGGAGGAGGGGAGAGCCCGTCCGCGCCTGGGCTCCC  
GGGGTGGCACGAGCCCGCGGCCGAGTGCAGGCGGAGGCGAGGAGGCCGCGGGGACGGGAGGCGAGGCCGCGCCG  
GGCCCCGGAAGCC**ATGG**GAGAACGCGCACACCAAGACGGGTGGAGGAGGTGCTGGGCCACTTCGGCGCTCAACGAGAG  
TACGGGGCTGAGCCTGGAACAGGTCAAGAAGCTTAAGGAGAGATGGGGCTCCAACGAGTTACCGGCTGAAGAAGG  
AAAAACCTTGCTGGAACCTTGATGATTGAGCAGTTTGAAGACTTGCTAGTTAGGATTTTATTACTGGCAGCATGTAT  
ATCTTTTGTGGCTTGTTTGAAGAAGGTGAAGAAACAATTACAGCCTTTGTAGAACCTTTTGTAAATTTTACT  
CATATTAGTAGCCAATGCAATTGTGGGTGTATGGCAGGAAAGAAATGCTGAAAATGCCATCGAAGCCCTTAAGGA  
ATATGAGCCTGAAATGGGCAAAGTGTATCGACAGGACAGAAAGAGTGTGCAGCGGATTAAAGCTAAAGACATAGT  
TCCTGGTGATATTGTAGAAATTGCTGTTGGTGACAAAGTTCTCTGCTGATATAAGGTTAACTTCCATCAAATCTAC  
CACACTAAGAGTTGACCAGTCAATTCTCACAGGTGAATCTGTCTCTGTCTATCAAGCACACTGATCCCGTCCCTGA  
CCCACGAGCTGTCAACCAAGATAAAAAGAACATGCTGTTTTCTGGTACAAACATTGCTGCTGGGAAAGCTATGGG  
AGTGGTGGTAGCAACTGGAGTTAACACCGAAATTGGCAAGATCCGGGATGAAATGGTGGCAACAGAACAGGAGAG  
AACACCCCTTCAGCAAAAAGTAGATGAATTTGGGGAACAGCTTTCCAAAGTCATCTCCCTTATTTGCATTGCAGT  
CTGGATCATAAATATTGGGCACCTCAATGACCCGGTTCATGGAGGGTCTGGATCAGAGGTGCTATTTACTACTT  
TAAAATTGCAGTGGCCCTGGCTGTAGCAGCCATTCTGAAGGTCTGCCTGCAGTCATCACCACCTGCCTGGCTCT  
TGGAACTCGCAGAATGGCAAAGAAAAATGCCATTGTTGGAAGCCTCCCGTCTGTGGAACCCCTTGGTTGTACTTC  
TGTTATCTGCTCAGACAAGACTGGTACACTTACAACAAACCAGATGTCAGTCTGCAGGATGTTTCACTCTGGACAG  
AGTGGAAGGTGATACTTGTTCCTTAATGAGTTTACCATAACTGGATCAACTTATGCACCTATTGGAGAAGTGCA  
TAAAGATGATAAACAGTGAATTGTACCAGTATGATGGTCTGGTAGAATTAGCAACAATTTGTGCTCTTTGTAA  
TGACTCTGCTTTGGATTACAATGAGGCAAAGGGTGTGTATGAAAAAGTTGGAGAAGCTACAGAGACTGCTCTCAC  
TTGCCTAGTAGAGAAGATGAATGTATTTGATACCGAATTGAAGGGTCTTTCTAAAATAGAACGTGCAAATGCCTG  
CAACTCAGTCATTAAACAGCTGATGAAAAAGGAATTCACCTCTAGAGTTTTCACGTGACAGAAAGTCAATGTCGGT  
TTACTGTACACCAAATAAACCAAGCAGGACATCAATGAGCAAGATGTTTGTGAAGGGTGTCTCTGAAGGTGTCTAT  
TGACAGGTGCACCCACATTGAGTTGGAAGTACTAAGGTTTCTATGACCTCTGGAGTCAAACAGAAGATCATGTC  
TGTCATTGAGAGTGGGGTAGTGGCAGCGACACACTGCGATGCCTGGCCCTGGCCACTCATGACAACCCACTGAG  
AAGAGAAGAAATGCACCTTGAGGACTCTGCCAACTTTATTAAATATGAGACCAATCTGACCTTCGTTGGCTGCGT  
GGGCATGCTGGATCCTCCGAGAATCGAGGTGGCCTCCTCCGTGAAGCTGTGCCGGAAGCAGGCATCCGGGTCTAT  
CATGATCACTGGGGACAACAAGGGCACTGCTGTGGCCATCTGTGCGCCGATCGGCATCTTCGGGCAGGATGAGGA  
CGTGACGTCAAAAGCTTTTACAGGCCGGGAGTTTGATGAACTCAACCCCTCCGCCCAGCGAGACGCCTGCCTGAA  
CGCCCGCTGTTTTGCTCGAGTTGAACCCCTCCCAAGTCTAAAATCGTAGAATTTCTTCAGTCTTTTGATGAGAT  
TACAGCTATGACTGGCGATGGCGTGAACGATGCTCCTGCTCTGAAGAAAGCCGAGATTGGCATTGCTATGGGCTC  
TGGCACTGCGGTGGCTAAAACCGCTCTGAGATGGTCTGGCGGATGACAACCTTCTCCACCATTGTGGCTGCCGT  
TGAGGAGGGGCGGGCAATCTACAACAACATGAAACAGTTCATCCGCTACCTCATCTCGTCCAACGTGCGGGGAAGT  
TGTCTGTATTTTCTGACAGCAGCCCTTGGAATTTCCCGAGGCTTTGATTCTGTTCAGTGTCTGCGGTCAATCT  
GGTGACAGATGGCCTGCCTGCCACTGCACTGGGGTTCAACCCCTCCTGATCTGGACATCATGAATAAACCTCCCCG  
GAACCCAAAGGAACCATGATCAGCGGGTGGCTCTTTTCCGTTACTTGGCTATTGGCTGTTACGTGCGCGCTGC  
TACCGTGGGTGCTGCTGCATGGTGGTTTCAATTGCTGCTGACGGTGGTCCAAGAGTGTCTTCTACCAGCTGAGTCA  
TTTCTTACAGTGTAAGAGGACAACCCGGACTTTGAAGGCGTGGATTGTGCAATCTTTGAATCCCCATACCCGAT  
GACAATGGCGCTCTCTGTTCTAGTAACTATAGAAATGTGTAACGCCCTCAACAGCTTGTCCGAAAACAGTCCTT  
GCTGAGGATGCCCCCTGGGAGAACATCTGGCTCGTGGGCTCCATCTGCCTGTCCATGTCACTCCACTTCCTGAT  
CCTCTATGTGCAACCCCTGGCACTCATCTTCCAGATCACACCGCTGAACGTGACCCAGTGGCTGATGGTGCTGAA  
AATCTCCTTGCCCGTGATTCTCATGGATGAGACGCTCAAGTTTGTGGCCCGCAACTACCTGGAACCTGGTAAAGA  
GTGTGTGCAGCCTGCCACCAAATCCTGCTCGTTCTCGGCATGCACCGATGGGATTTCTGGCCGTTTGTGCTGCT  
CATAATGCCCCCTGGTGATCTGGGTCTATAGCACAGACACTAACTTTAGCGATATGTTCTGGTCT**TGAC**TGACAGT  
TTTCCATAAAGAAGATGTTTAACTTAATCAATTAATTTTTTTTATTGTTTAAAGCAACTGTCTATTTCTGCTGAAT  
TTTACATGAACATACTGGCTGGTGATGGAGGTTTCATACTCTAGATTTTGTGTTTGGCTTTTTTCTGACTCCAGTGG  
GGCAAGATTTTCTTTTTTATACACATAATTAAAGTGTCATTGACATGTACAGAGAACTAACACTATTTTATGC  
AAATATTTTTTTGTAGATGAAAAAGCATGTACAGTGTCTGTGTTAATACTCATCCTTGATAAAAAAATAGTTG



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**FIGURE 1398B**

AGCCAGCAGACATTGTCAGCAAATTAATTGGCAGCAGATTTTAGGAAATGAATGTGTGTGGTTTTTTTTCTAAAA  
CTAAATAGCATGTATTGTGTCTTTTGCATGATGATCCGGATTTAATTTGATATCACAGTCTAATTTTTATTCATA  
AGCCAATTTTTCTGCACTGAGCAGAGTCTTGCTACCTCAGTCAGTATTGTTTTGGTTTGCTACTTCCCTCACCCA  
CTTTGGCCTCCGTTACCCCCACCCACCCACCTCTCCCCACCTTACCCCCGCCCCGCTTGGCTTCTTCTTTAGG  
ATTGTGATGGTTCGTTCTGTTTACATCAGTTTTAACGAGAGGTATGCCTGTACTCGCTTGTGCAGAAAACATTGT  
TCCAGATTCAATCGACTGGGTTTATGTCCCTTCACATAGTTTTTAAGGTTATTTATTTAAATGTCIAATGTATTT  
TATTGTAACAGACATTGTTTTGCCAACATTGCCTATTTTCAGTGGCACGTCATCTAGTTTTAAAAAAATAAACAT  
TTTAAAAAG

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**FIGURE 1399**

MENAHTKTVEEVLGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLLELVIEQFEDLLVRILLILAACISFVL  
AWFEEGETITAFVEPFVILLILVANAIVGVWQERNAENAIEALKEYEPEMGKVYRQDRKSVQRIKAKDIVPGDI  
VEIAVGDKVPADIRLTSIKSTTLRVDQSILTGESVSVIKHTDPVPDPRAVNQDKKNMLFSGTNIAAGKAMGVVVA  
TGVNTEIGKIRDEMVAEQERTPLQOKLDEFGEQLSKVISLICIAVWIINIGHFNDPVHGGSWIRGAIYYFKIAV  
ALAVAAIPEGLPAVITTCALGTRMAKKNAIVRSLPSVETLGCTSVICSDKTGTLTTNQMSVCRMFIILDRVEGD  
TCSLNEFTITGSTYAPIGEVHKDDKPVNCHQYDGLVELATICALCNDSDALDYNEAKGVYEKVGAEATETALTCLVE  
KMNVFDTELKGLSKIERANACNSVIKQLMKKEFTLEFSRDRKSMSVYCTPNKPSRTSMSKMFVKGAPEGVIDRCT  
HIRVGSTKVPMTSGVKQKIMSVIREWGS GSDTLRCLALATHDNPLRREEMHLED SANFIKYETNLTFVGCVGMLD  
PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDVTSKAF TGREFDELNPSAQORDACLNARCF  
ARVEPSHKSKIVEFLQSFDEITAMTGDGVNDAPALKKAEIGIAMGSGTAVAKTASEMVLADDNFSTIVA AVEEGR  
AIYNNMKQFIRYLISSNVGEVVCIFLTAALGFPEALIPVQLLWVNLVTDGLPATALGFNPPDLDIMNKPPRNPKE  
PLISGWLFFRYLAIGCYVGAATVGAAAWWFIAADGGPRVSFYQLSHFLQCKEDNPDFEGVDCAIFESPYPMTMAL  
SVLVTIEMCNALNSLSENQSLRMPPWENIWLVGSI CLSMSLHFLILYVEPLPLIFQITPLNVTQWLMVLKISLP  
VILMDETLKFVARNYLEPGKECVQPATKSCSF SACTDGISWPFVLLIMPLVIWVYSTDTNFS DMFWS

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**FIGURE 1400**

AACCGCATCTGCAGCGAGCAACTGAGAAGCCAAGACTGAGCCGGCGGCCGCGGCGCAGCGAACGAGCAGTGACCG  
TGCTCCTACCCAGCTCTGCTTCACAGCGCCACCTGTCTCCGCCCCCTCGGCCCCCTCGCCCCGGCTTTGCCTAACCG  
CCACGATGATGTTCTCGGGCTTCAACGCAGACTACGAGGCGTCATCCTCCCGCTGCAGCAGCGCGTCCCCGGCCG  
GGGATAGCCTCTCTTACTACCACTCACCCGCAGACTCCTTCTCCAGCATGGGCTCGCCTGTCAACGCGCAGGACT  
TCTGCACGGACCTGGCCGTCTCCAGTGCCAACTTCATTCCCACGGTCACTGCCATCTCGACCAGTCCGGACCTGC  
AGTGGCTGGTGCAGCCCCGCCCTCGTCTCCTCTGTGGCCCCATCGCAGACCAGAGCCCCCTCACCCTTTCGGAGTCC  
CCGCCCCCTCCGCTGGGGCTTACTCCAGGGCTGGCGTTGTGAAGACCATGACAGGAGGCCGAGCGCAGAGCATTG  
GCAGGAGGGGCAAGGTGGAACAGTTATCTCCAGAAGAAGAAGAGAAAAGGAGAATCCGAAGGGAAAGGAATAAGA  
TGGCTGCAGCCAAATGCCGCAACCGGAGGAGGGAGCTGACTGATACTCCAAGCGGAGACAGACCAACTAGAAG  
ATGAGAAGTCTGCTTTGCAGACCGAGATTGCCAACCTGCTGAAGGAGAAGGAAAACTAGAGTTCATCCTGGCAG  
CTCACCGACCTGCCTGCAAGATCCCTGATGACCTGGGCTTCCAGAAGAGATGTCTGTGGCTTCCCTTGATCTGA  
CTGGGGGCTGCCAGAGTTGCCACCCCGAGTCTGAGGAGGCCCTTACCCTGCCTCTCCTCAATGACCTGAGC  
CCAAGCCCTCAGTGAACCTGTCAAGAGCATCAGCAGCATGGAGCTGAAGACCGAGCCCTTTGATGACTTCCTGT  
TCCCAGCATCATCCAGGCCAGTGGCTCTGAGACAGCCCGCTCCGTGCCAGACATGGACCTATCTGGGTCCTTCT  
ATGCAGCAGACTGGGAGCCTCTGCACAGTGGCTCCCTGGGGATGGGGCCCATGGCCACAGAGCTGGAGCCCCCTGT  
GCACTCCGGTGGTCACCTGTACTCCAGCTGCACTGCTTACACGTCTTCTTCGTCTTACCTACCCCGAGGCTG  
ACTCCTTCCCCAGCTGTGCAGCTGCCCACCGCAAGGGCAGCAGCAGCAATGAGCCTTCTCTGACTCGCTCAGCT  
CACCCACGCTGCTGGCCCTGTGAGGGGGCAGGGAAGGGGAGGCAGCCGGCACCCACAAGTGCCACTGCCCCGAGCT  
GGTGCATTACAGAGAGGAGAAACACATCTTCCCTAGAGGGTTCCTGTAGACCTAGGGAGGACCTTATCTGTGCGT  
GAAACACACCAGGCTGTGGGCCTCAAGGACTTGAAAGCATCCATGTGTGGACTCAAGTCCTTACCTCTTCCGGAG  
ATGTAGCAAAACGCATGGAGTGTGTATTGTTCCCAGTGACACTTCAGAGAGCTGGTAGTTAGTAGCATGTTGAGC  
CAGGCCCTGGGTCTGTGTCTCTTTTCTCTTCTCCTTAGTCTTCTCATAGCATTAATACTAATCTATTGGGTTCATTA  
TTGGAATTAACCTGGTGCTGGATATTTTCAAATTGTATCTAGTGCAGCTGATTTTAAACAATAACTACTGTGTTCC  
TGGCAATAGTGTGTTCTGATTAGAAATGACCAATATTATACTAAGAAAAGATACGACTTTATTTTCTGGTAGATA  
GAAATAAATAGCTATATCCATGTACTGTAGTTTTTCTTCAACATCAATGTTTATTGTAATGTTACTGATCATGCA  
TTGTTGAGGTGGTCTGAATGTTCTGACATTAACAGTTTTTCCATGAAAACGTTTTATTGTGTTTTTAATTTATTTA  
TTAAGATGGATTCTCAGATATTTATATTTTATTTTATTTTTTCTACCTTGAGGTCTTTTGACATGTGGAAAGT  
GAATTTGAATGAAAAATTTAAGCATTGTTTGCTTATTGTTCCAAGACATTGTCAATAAA

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**FIGURE 1401**

MMFSGFNADYEASSSRCSSASPAGDSLSEYYHSPADSFSSMGSPVNAQDFCTDLAVSSANFIPTVTAISTSPDLQW  
LVQPALVSSVAPSQTRAPHFPGVPAPSAGAYSRAGVVKMTGGRAQSIGRRGKVEQLSPEEEEKRRIRRERNKMA  
AAKCRNRRRELTDTLQAETDQLEDEKSALQTEIANLLKEKEKLEFILAHRPACKIPDDLGFPEEMSVASLDLTG  
GLPEVATPESEEAFTLPLLNDPEPKPSVEPVKSISSMELKTEPFDDFLFPASSRPSGSETARSVPMMDLSGSFYA  
ADWEPLHSGSLGMGPMATELEPLCTPVVTCTPSCTAYTSSFVFVTYPEADSFPSCAAHRKGSSSNEPSSDSLSSP  
TLLAL

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**FIGURE 1402**

GGGCACGAGGGCAGAGCCAGTTCCTAGCGCAGAGCCGCGCCCGCC**ATG**AGGGAGATCGTGACATCCAGGCGGGC  
CAGTGCGGGAACCAGATCGGCACCAAGTTTTGGGAAGTGATCAGCGATGAGCACGGCATCGACCCGGCCGGAGGC  
TACGTGGGAGACTCGGCGCTGCAGCTGGAGAGAATCAACGTCTACTACAATGAGTCATCGTCTCAGAAATATGTG  
CCCAGGGCCGCCCTGGTGGACTTAGAGCCAGGCACCATGGACAGCGTGCGGTCTGGGCCTTTTGGGCAGCTTTTC  
CGGCCTGACAACTTCATCTTTGGCCAGACGGGTGCAGGGAACAACCTGGGCGAAAGGGCACTACACGGAGGGCGCG  
GAGCTGGTGGACGCAGTGCTGGACGTGGTGCAGGAAGGAGTGCGAGCACTGCGACTGCCTGCAGGGCTTCCAGCTC  
ACGCACTCGCTGGGCGGGCGGCACGGGCTCAGGCATGGGCACGCTGCTCATCAGCAAGATCCGTGAGGAGTTCCCG  
GACCGCATCATGAACACCTTCAGCGTCATGCCCTCGCCCAAGGTGTCGGACACGGTGGTGGAGCCCTACAATGCC  
ACACTGTGCGGTGCACCAGCTGGTGGAGAATACAGACGAGACCTACTGCATCGACAACGAGGCGCTCTATGACATC  
TGCTTCGCACTCTGAAGCTGACAACGCCCCACCTACGGGGACCTCAACCACCTGGTGTCCGCCACCATGAGTGGG  
GTCAACACCTCGCTGCGCTTCCCGGGCCAGCTCAATGCTGACCTGCGCAAGCTGGCGGTGAACATGGTGCCCTTC  
CCGCGCTGCACCTTCTTCATGCCTGGCTTCGCGCCGCTCACCAGCCGCGGCAGCCAGCAGTACCGGGCCCTGACC  
GTGCCCCGAGCTCACCAGCAGATGTTGACGCCAGGAACATGATGGCCGCTGCGATCCGCGCCATGGCCGCTAC  
CTGACCGTGGCCACCGTGTTCCGCGGGCCCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGGCCATCCAGAGT  
AAGAACAGCAGCTACTTCGTGGAGTGGATTCCCAACAACGTGAAGGTGGCCGTGTGCGACATCCCGCCCCGCGGC  
CTGAAGATGGCCTCCACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTC  
TCAGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTTCACGGGTGAGGGCATGGATGAAATGGAGTTCACCGAG  
GCGGAGAGCAACATGAACGACCTGGTATCCGAGTACCAGCAGTACCAGGATGCCACCGCCAATGACGGGGAGGAA  
GCTTTTGAGGATGAGGAAGAGGAGATCGATGGAT**TAGT**CGGAATAGAGCCGCCCAACTCAGATCCTACAACACGC  
AAGTTCCTTCTTGAACCCTGGTGCCTCCTACCCTATGGCCCTGAATGGTGCCTGGTTTAATTGTGTTGGTGTGCG  
GCCCCTCACAAATGCAGCCAAGTCATGTAATTAGTCATCTGGAACAAAGACTAAAAACAGCAGAGAATTGCGGGT  
TCTACCCAGTCAGAAGATCACACCATGGAGACTTTCTACTAGAGGACTTGAAAGAGAACTGAGGGGCCACAAAAT  
AAACTTCACCTTCCATTAAAGTGTTCAGCATGTCTGCAAATTAGGAGGGAGTTAGAAACAGTCTTTTTCATCCTT  
TGTGATGAAGCCTGAAATTGTGCCGTGTTGCCTTATATGAATATGCAGTATGGGACTTTGAAATAATGATTCATA  
ATAAAATACTAAACGTGTGTCTTCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1403**

MREIVHIQAGQCGNQIGTKFWEVISDEHGIDPAGGYVGDSALQLERINVYYNESSSQKYVPRAALVDLEPGTMDS  
VRSGPFGQLFRPDNFIFGQTGAGNNWAKGHYTEGAELVDAVL DVVRKECEHCDCLQGFQLTHSLGGGTGSGMGTL  
LISKIREEF PDRIMNTFSVMPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL  
NHLVSATMSGVTTSLRFPGQLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDARNMM  
AACDPRHG RYLT VATVFRGPMSMKEVDEQMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMASTFIGNSTAIQ  
ELFKRISEQFSAMFRRKAFLHWFTGEGMDEMEFTEAESNMNDLVSEYQQYQDATANDGEEAFEDDEEEEIDG

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**FIGURE 1404**

GAGGAGGCCCCGAGAGGAGTCGGTGGCAGCGGCGGCGGGACCGGCAGCAGCAGCAGCAGCAGCAGCAACC  
ACTAGCCTCCTGCCCCGCGCGCTTGCGACGAGCCCCACGAGCCGCTCACCCCGCCGTTCTCAGCGCTGCCCCGACC  
CCGCTGGCGCGCCTCCCCGCCGAGTCCCGGCAGCGCCTCAGTTGTCTCCGACTCGCCCTCGGCCTTCGCGCAGC  
GCAGCACAGCCGCACGCACCGCAGCACAGCACAGCCCAGGCATAGCTTCGGCACAGCCCCGGCTCCGGCT  
CCTGCGGCAGCTCCTCTGGCACGTCCCTGCGCCGACATTCTGGAGGTTGGATGCTCTTGTTCCAAAAATCAACTCGC  
TTGCCACCTGCGCGCCGCGCCCTGCAACGACCTGCACGCCACCAAGCTGGCGCCCCGGAAGGAGAAGGAGCCCC  
TGGAGTCGAGTACCAGGTGGGCCCCGCTACTGGGCAGCGCGCGCTTCGGCTCGGTCTACTCAGGCATCCGCGTCT  
CCGACAACCTTGCCGGTGGCCATCAAACACGTGGAGAAGGACCGGATTTCGACTGGGGAGAGCTGCCTAATGGCA  
CTCGAGTGCCCATGGAAGTGGTCCTGCTGAAGAAGGTGAGCTCGGGTTTCTCCGGCGCTCATTAGGCTCCTGGACT  
GGTTCGAGAGGCCCCGACAGTTTCGTCTGATCCTGGAGAGGCCCCGAGCCGGTGCAAGATCTCTTCGACTTCATCA  
CGGAAAGGGGAGCCCTGCAAGAGGAGCTGGCCCGCAGCTTCTTCTGGCAGGTGCTGGAGGCCGTGCGGCACTGCC  
ACAACTGCGGGGTGCTACACCGCGACATCAAGGACGAAAACATCCTTATCGACCTCAATCGCGCGCAGCTCAAGC  
TCATCGACTTCGGGTGCGGGGCGCTGCTCAAGGACACCGTCTACACGGACTTCGATGGGACCCGAGTGTATAGCC  
CTCCAGAGTGGATCCGCTACCATCGCTACCATGGCAGGTGCGCGGCAGTCTGGTCCCTGGGGATCCTGCTGTATG  
ATATGGTGTGTGGAGATATTCCTTTCGAGCATGACGAAGAGATCATCAGGGGCCAGGTTTTCTTCAGGCAGAGGG  
TCTCTTCAGAATGTCAGCATCTCATTAGATGGTGTCTGGCCCTGAGACCATCAGATAGGCCAACCTTCGAAGAAA  
TCCAGAACCATCCATGGATGCAAGATGTTCTCCTGCCCCAGGAACTGCTGAGATCCACCTCCACAGCCTGTGCG  
CGGGGCCCCAGCAAATAGCAGCCTTTCTGGCAGGTCCCTCCCCTCTCTTGTGATGCCCCGAGGGAGGGGAAGCTTC  
TGTCTCCAGCTTCCCGAGTACCAGTGACACGTCTCGCCAAGCAGGACAGTGCTTGATACAGGAACAACATTTACA  
ACTCATTTCCAGATCCCAGGCCCCCTGGAGGCTGCCTCCCAACAGTGGGGAAGAGTGACTCTCCAGGGGTCTAGGC  
CTCAACTCCTCCCATAGATACTCTCTTCTCTCATAGGTGTCCAGCATTGCTGGACTCTGAAATATCCCGGGGGT  
GGGGGGTGGGGGTGGGCAGAACCCCTGCCAATGGAACCTTTTCTTCATCATGAGTTCTGCTGAATGCCGCGATGGG  
TCAGGTAGGGGGGAAACAGGTTGGGATGGGATAGGACTAGCACATTTTAAGTCCCTGTCACCTCTTCCGACTCTT  
TCTGAGTGCCTTCTGTGGGGACTCCGGCTGTGCTGGGAGAAATACTTGAACCTTGCTCTTTTACCTGCTGCTTCT  
CCAAAAATCTGCCTGGGTTTTGTTCCTATTTTTTCTCTCCTGTCTCCCTCACCCCTCCTTCATATGAAAGGTG  
CCATGGAAGAGGCTACAGGGCCAAACGCTGAGCCACCTGCCCTTTTTTCTGCCTCCTTTAGTAAAACTCCGAGTG  
AACTGGTCTTCTTTTTTGGTTTTTACTTAACTGTTTCAAAGCCAAGACCTCACACACACAAAAAAATGCACAAAC  
CAAGCAATCAACAGAAAAGCTGTAAATGTGTGTACAGTTGGCATGGTAGTATACAAAAAGATTGTAGTGATCTA  
ATTTTTAAGAAATTTTGCCTTTAAGTTATTTTACCTGTTTTTGTCTTGTGTTTTGAAAGATGCGCATTCTAACCT  
GGAGGTCAATGTTATGTATTTATTTATTTATTTATTTGTTTCCCTTCCATTCCAAGCTTCCATAGCTGCTGCCC  
TAGTTTTCTTTCTCCTTTCTCCTCTGACTTGGGGACCTTTTGGGGGAGGGCTGCGACGCTTGCTCTGTTTGTG  
GGGTGACGGGACTCAGGCGGGACAGTGCTGCAGCTCCCTGGCTTCTGTGGGGCCCCCTACCTACTTACCCAGGTG  
GGTCCCGGCTCTGTGGGTGATGGGAGGGGCCATTGCTGACTGTGTATATAGGATAATTATGAAACACAGTTCTGG  
ATGGTGTGCCTTCCAGATCCTCTCTGGGGCTGTGTTTTGAGCAGCAGGTAGCCTGCTGGTTTTATCTGAGTGAAA  
TACTGTACAGGGGAATAAAAGAGATCTTATTTTTTTTTTATACTTGCCTTTGGAATAAAAACCCCTTGGCTTT

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**FIGURE 1405**

MLLSKINSLAHLRAAPCNDLHATKLAPGKEKEPLESQYQVGPLLGGGFGSVYSGIRVSDNLPVAIKHVEKDRI  
DWGELPNGTRVPMEVVLLKKVSSGFSGVIRLLDWFERPDSFVLILERPEPVQDLFDITERGALQEELARSFFWQ  
VLEAVRHCHNCGVLHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTDGTRVYSPPEWIRYHRYHGRSAAV  
WSLGILLYDMVCGDIPFEHDEEIIRGQVFFRQVRSSECQHLIRWCLALRPSDRPTFEEIQNHPWMQDVLLPQETA  
EIHLSLSPGPSK



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**FIGURE 1406A**

GAATTCCCAGCTCTCTGCTCGCTCTGCTCGCAGTCACAGACACTTGAGCACACGCGTACACCCAGACATCTTCGG  
GCTGCTATTGGATTGACTTTGAAGGTTCTGTGTGGGTCGCCGTGGCTGCATGTTTGAATCAGGTGGAGAAGCACT  
TCAACGCTGGACGAAGTAAAGATTATTGTTGTTATTTTTTTTTTCTCTCTCTCTCTCTCTTAAGAAAAGGAAAATA  
TCCCAAGGACTAATCTGATCGGGTCTTCCTTCATCAGGAACGAATGCAGGAATTTGGGAACTGAGCTGTGCAAGT  
GCTGAAGAAGGAGATTTGTTTGGAGGAAAACAGGAAAGAGAAAGAAAAGGAAGGAAAAAATACATAATTTTCAGGGA  
CGAGAGAGAGAAGAAAAACGGGGACTATGGGGGAGAAAAAAGATTTCAGATTACGAGGATTATGGATGAACGTAACA  
GACAGGTGACATTTACAAAGAGGAAATTTGGGTTGATGAAGAAGGCTTATGAGCTGAGCGTGCTGTGTGACTGTG  
AGATTGCGCTGATCATCTTCAACAGCACCAACAAGCTGTTCCAGTATGCCAGCACCGACATGGACAAAAGTGCTTC  
TCAAGTACACGGAGTACAACGAGCCGCATGAGAGCCGGACAAACTCAGACATCGTGAGACGTTGAGAAAAGAAGG  
GCCTTAATGGCTGTGACAGCCAGACCCCGATGCGGACGATTCCGTAGGTCACAGCCCTGAGTCTGAGGACAAGT  
ACAGGAAAATTAACGAAGATATTGATCTAATGATCAGCAGGCAAAGATTGTGTGCTGTTCCACCTCCCAACTTCG  
AGATGCCAGTCTCCATCCCAGTGTCCAGCCACAACAGTTTGGTGTACAGCAACCCTGTGAGCTCACTGGGAAACC  
CCAACCTATTGCCACTGGCTCACCTTCTCTGCAGAGGAATAGTATGTCTCCTGGTGTAAACACATCGACCTCCAA  
GTGCAGGTAACACAGGTGGTCTGATGGGTGGAGACCTCACGTCTGGTGCAGGCACCAGTGCAGGGAACGGGTATG  
GCAATCCCCGAAACTCACCAGGTCTGCTGGTCTCACCTGGTAACTTGAACAAGAATATGCAAGCAAAATCTCCTC  
CCCCAATGAATTTAGGAATGAATAACCGTAAACCAGATCTCCGAGTTCTTATTCCACCAGGCAGCAAGAATACGA  
TGCCATCAGTGTCTGAGGATGTGACCTGCTTTTGAATCAAAGGATAAATAACTCCAGTCGGCTCAGTCATTGG  
CTACCCCACTGGTTTTCCGTAGCAACTCCTACTTTACCAGGACAAGGAATGGGAGGATATCCATCAGCCATTTCAA  
CAACATATGGTACCGAGTACTCTCTGAGTAGTGCAGACCTGTCATCTCTGTCTGGGTTTAAACACCGCCAGCGCTC  
TTCACCTTGGTTCAGTAACTGGCTGGCAACAGCAACACCTACATAACATGCCACCATCTGCCCTCAGTCAGTTGG  
GAGCTTGCCTAGCACTCATTTATCTCAGAGTTCAAATCTCTCCCTGCCTTCTACTCAAAGCCTCAACATCAAGT  
CAGAACCTGTTTTCTCCTCCTAGAGACCGTACCACCACCCCTTCGAGATACCCACAACACACGCGCCACGAGGCGG  
GGAGATCTCCTGTTGACAGCTTGAGCAGCTGTAGCAGTTCGTACGACGGGAGCGACCGAGAGGATCACCGGAACG  
AATTCCACTCCCCATTGGACTCACCAGACCTTCGCCGGACGAAAGGGAAAGTCCCTCAGTCAAGCGCATGCGAC  
TTTCTGAAGGATGGGCAACATGATCAGATTATTACTTACTAGTTTTTTTTTTTTTTTCTTGCAGTGTGTGTGTGTC  
TATACCTTAATGGGGAAGGGGGGTGATATGCATTATATGTGCCGTGTGTGGAAAAAAAAAAGTCAGGTACTCT  
GTTTTGTAAAAGTACTTTTAAATTGCCTCAGTGATACAGTATAAAGATAAACAGAAATGCTGAGATAAGCTTAGC  
ACTTGAGTTGTACAACAGAACACTTGTACAAAATAGATTTTAAAGGCTAACTTCTTTTCACTGTTGTGCTCCTTTG  
CAAAATGTATGTTACAATAGATAGTGTATGTTGCAGGTTCAACGTTATTTACATGTAAATAGACAAAAGGAAAC  
ATTTGCCAAAAGCGGCAGATCTTTACTGAAAGAGAGAGCAGCTGTTATGCAACATATAGAAAAATGTATAGATGC  
TTGGACAGACCCGGTAATGGGTGGCCATTGGTAAATGTTAGGAACACACCAGGTCACCTGACATCCCAAGAAATGC  
TCACAAACCTGCAGGCATATCATTGGCGTATGGCACTCATTAAAAAGGATCAGAGACCATTAAAAGAGGACCATA  
CCTATTAAAAAAAATGTGGAGTTGGAGGGCTAACATATTTAATTAAATAAATAAATAAATCTGGGTCTGCATCT  
CTTATTAAATAAAAATATAAAAATATGTACATTACATTTTGCTTATTTTCATATAAAAGGTAAGACAGAGTTTG  
AAAGCATTTGTGGCTTTTTGTAGTTTACTTAAGCCAAAATGTGTTTTTTTCCCCTTGATAGCTTCGCTAATATTT  
TAAACAGTCCTGTAAAAAACCAAAAAGGACTTTTTGTATAGAAAGCACTACCCTAAGCCATGAAGAACTCCATGC  
TTTGCTAACCAAGATAACTGTTTTCTCTTTGTAGAAGTTTTGTTTTTGAATGTGTATTTCTAATTATATAAAAT  
ATTAAGAAATCTTTTAAAAAATCTGTGAAATTAACATGCTTGTGTATAGCTTTCTAATATATATAATATTATGGT  
AATAGCAGAAGTTTTGTTATCTTAATAGCGGGAGGGGGGTATATTTGTGCAGTTGCACATTTGAGTAACTATTTT  
CTTTCTGTTTTCTTTTACTCTGCTTACATTTTATAAGTTTAAAGGTCAGCTGTCAAAGGATAACCTGTGGGGTTA  
GAACATATCATTGCAACACCCTAAATTGTTTTTAATACATTAGCAATCTATTGGGTCAACTGACATCCATTGT  
ATATACTAGTTTCTTTTATGCTATTTTTATTTTGTTTTTTGCATTTTTATCAAATGCAGGGCCCCCTTTCTGATCT  
CACCATTTACCATGCATCTTGAATTTCAGTAAGTGCATATCCCTAAGCTGCCCATATTCTAAATCATCTGGTTGG  
TTTTTCAGCCTAGAATTTGATACGCTTTTTAGAAAATATGCCCAGAATAGAAAAGCTATGTTGGGGCACATGTCCTG  
CAAATATGGCCCTAGAAACAAGTGATATGGAATTTACTTGGTGAATAAGTTATAAATTTCCACAGAAGAAAAATG  
TGAAAGACTGGGTGCTAGACAAGAAGGAAGCAGGTAAAGGGATAGTTGCTTTGTCAATCCGTTTTTAAATTATTTTA  
ACTGACCCCTTGACAATCTTGTGAGCAATATAGGACTGTTGAACAATCCCGGTGTGTGAGGACCCCCAAATGTCAC  
TTCTGCATAAAGCATGTATGTCATCTATTTTTTCTTCAATAAAGAGATTTAATAGCCATTTCAAGAAATCCCATA

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**FIGURE 1406B**

AAGAACCTCTCTATGTCCCTTTTTTTAATTTAAAAAAATGACTCTTGTCTAATATTCGTCTATAAGGGATTAATT  
TTCAGACCCCTTTAATAAGTGAGTGCCATAAGAAAGTCAATATATATTGTTTAAAAGATATTTTCAGTCTAGGAAAG  
ATTTTCCTTCTCTTGGAATGTGAAGATCTGTGATTTCATCTCCAATCATATGCATTGACATACACAGCAAAGAAG  
ATATAGGCAGTAATATCAACACTGCTATATCATGTGTAGGACATTTCTTATCCATTTTTTCTCTTTTACTTGCA  
AGTTGCTATGTGTTTCTCATTGTAAAAGGCTGCCGCTGGGTGGCAGAAGCCAAGAGACCTTATTAAGTAGGCTAT  
ATTTTCTTAACTTGATCTGAAATCCACAATTAGACCACAATGCACCTTTGGTTGTATCCATAAAGGATGCTAGC  
CTGCCTTGTAATAATGTTTTATATATT

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**FIGURE 1407**

MGRKKIQITRIMDERNRQVTFTKRKFGLMKKAYELSVLCDCEIALIIFNSTNKLQYASTDMDKVLLKYTEYNEP  
HESRTNSDIVETLRKKGLNGCDSPDPDADDSVGHSPESSEDKYRKINEDIDLMISRQRLCAVPPPNFEMPVSIPVS  
SHNSLVYSNPVSSLGNPNLLPLAHPQLQRNSMSPGVTHRPPSAGNTGGLMGGDLTSGAGTSAGNGYGNPRNSPGL  
LVSPGNLKNMQAKSPPPMNLGMNNRKPDLRVLIIPPGSKNTMPVSSEDVDLLLNRINNSQSAQSLATPVVSVAT  
PTLPGQGMGGYPSAISTTYGTEYSLSSADLSSLSGFNTASALHLGSVTGWQQQHLHNMPPSALSQLGACTSTHLS  
QSSNLSLPSTQSLNIKSEPVSPPRDRITTPSRYPQHRHEAGRSPVDSLSSCSSSYDGSDREDHRNEFHSPIGLT  
RPSDERESPSVKRMRLSEGWAT

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**FIGURE 1408**

ATAACGGTCCTAAGGTAGCGATATATATGTTTAAAAGATATTTTCAGTCTAGGAAAGATTTTCCTTCTCTTGGAAT  
GTGAAGATCTGTCGATTTCATCTCCAATCATATGCATTGACATACACAGCAAAGAAGATAT**TAGG**CAGTAATATCAA  
CACTGCTATATCATGTGTAGGACATTTCTTATCCATTTTTTCTCTTTTACTTGCATAGTTGCTATGTGTTTCTCA  
TTGTAAAAGGCTGCCGCTGGGTGGCAGAAGCCAAGAGACCTTATTAAGTGGCTATATTTTTCTTAACTTGATCT  
GAAATCCACAATTAGACCACAATGCACCTTGGTTGTATCCATAAAGGATGCTAGCCTGCCTTGTACTAATGNNNN  
NN  
AATAACATTTTATGCAGAGGAAAAACAAAACATCCCTGAAAATATACACACTCATACACACACACGCACAGGGGA  
ATAAAAAAAGAAAATCATTTTCTCACCATAGACTTGATCCCATCCTTACAACCCATCCTTCTAACTTGATGTGT  
ATAAAAAATATGCAAACATTTTCAAAATGTTCTTTGTCTATTTCAAATACTTTAGTATATCAATATCAGTAGATACC  
AGTGGGTGGGAAAGGGTCATTACATGAAAATATGAAGAAATAGCCATATTAGTTTTTTAACTGCAATTTGCCTC  
AGCAACAAAGAAAAAGTGAATTTTTAATGCTGAAGATAAAGTAAGCTAAAGTACCAGCAGAAGCCTTGGCTATTT  
ATAGCAGTTCTGACAATAGTTTTATAAGAACATGAAGAGAACAGAATCACTTGAAAATGGATGCCAGTCATCTCT  
TGTTCCCACTACTGAATTTCTTATAAAGTGGTGGCAAGATAGGGAAGGGATAATCTGAGAATTTTTAAAAGATGAT  
TTAATGAGAAGAAGCACAATTTTGATTGTGATGAGTCACTTTCTGTAAACAATCTTGGTCTATCTTTACCCTTAT  
ACCTTATCTGTAATTTACCATTTATTGTATTTGCAAAGCTAGTATGGTTTTTAATCACAGTAAATCCTTTGTATT  
CCAGACTTTAGGGCAGAGCCCTGAGGGAGTATTATTTTACATAACCCGTCCTAGAGTAACATTTTAGGCAACATT  
CTTCATTGCAAGTAAAGATCCATAAGTGGCATTTTACACGGCTGCGAGTATTGTTATATCTAATCCTATTTTAA  
AAGATTTTTGGTAATATGAAGCTTGAATACTGGTAACAGTGATGCAATATACGCAAGCTGCACAACCTGTATATT  
GTATGCATTGCTGCGTGGAGGCTGTTTTATTTCAACCTTTTTAAAATTTGTGTTTTTTAGTAAATGGCTTATTTT  
TTCCCAAAGGTGGAATTTAGCATTTTGTAATGATGAATATAAAAATACCTGTCATCCCCAGATCATTTAAAAGTT  
AACTAAAGTGAGAATGAAAAACAAAATTCCAAGACACTTTTTAAAAGAATGTCTGCCCTCACACACTTTTATGG  
ATTTGTTTTTCTTACATACCCATCTTTTAACTTAGAGATAGCATTTTTTGGCCTCTTTATTTTGTGTTTGTTC  
TCCAGAGAGTAAACGCTTTGTAGTTCTTTCTTTAAAAAACATTTTTTTTAAAGAAGAAGAAGCCACTTGAACCCCT  
CAATAAAGGCTGTTGCCTAAGCATGGCATACTTCATCTGTTCTCATTGTGCCATCTGCCGTGATGTCGTCACCTT  
TTATGGCGTTAATTTCTGCCACTACAGATCTTTTGAAGATTGCTGGAATACTGGTGTCTGTTAGAATGCTTCAG  
ACTACAGATGTAATTAAAGGCTTTTTCTTAATATGTTTTAACCAGATGTGGAGCAATCCAAGCCACATATCTTC  
TACATCAAATTTTTCCATTTTGGTTATTTTCATAATCTGGTATTGCATTTTGCCTTCCCTGTTTCATACCTCAAAT  
TGATTTCATACCTCAGTTTAATTCAGAGAGGTCAGTTAAGTGACGGATTCTGTTGTGGTTTTGAATGCAGTACCAGT  
GTTCTCTTCGAGCAAAGTAGACCTGGGTCACTGTAGGCATAGGACTTGGAATTGCTTCAGATGGTTTTGCTGTATCA  
TTTTTCTTCTTTTTCTTTTCTGGGGACTTGTTTCCATTAAATGAGAGTAATTAAAATCGCTTGTAATGAGGGC  
ATACAAGCATTTGCAACAAATATTCAAATAGAGGCTCACAGCGGCATAAGCTGGACTTTGTCGCCACTAGATGAC  
AAGATGTTATAACTAAGTTAAACCACATCTGTGTATCTCAAGGGACTTAATTCAGCTGTCTGTAGTGAATAAAG  
TGGGAAATTTTCAAAGTTTCTCCTGCTGGAATAAGGTATAATTTGTATTTTGAGACAATTCAGTAAAGTTAC  
TGGCTTTCTTAGTGATGCAGTGTCGCTGGTGCATTTTTTTAAATTAATGTTTTGCTGTTTAAATTTATTCATTT  
TATTGTGTTTTTTAAAAGCAGCTTATGCCACAAGCACAAATGAGCTTTCTCAGTTTTCAACTCAAAATATTATA  
TGAAAAGATGG

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**FIGURE 1409**

NGPKVAIYMFKRYFSLGKIFLLLECEDLSIHLQSYALTYTAKKI

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**FIGURE 1410**

CAGACTCGAGCAGTCTCTGGAACACGCTGCGGGGCTCCCGGGCCTGAGCCAGGTCTGTTCTCCACGCAGGTGTTT  
CGCGCGCCCCGTTTCAGCCATGTCGTCCGGCATCCATGTAGCGCTGGTGA CTGGAGGCAACAAGGGCATCGGCTTG  
GCCATCGTGCGCGACCTGTGCCGGCTGTTCTCGGGGGACGTGGTGCTCACGGCGCGGGACGTGACGCGGGGCCAG  
GCGGCCGTACAGCAGCTGCAGGCGGAGGGCCTGAGCCCGCGCTTCCACCAGCTGGACATCGACGATCTGCAGAGC  
ATCCGCGCCCTGCGCGACTTCCTGCGCAAGGAGTACGGGGGGCCTGGACGTGCTGGTCAACAACGCGGGGCATCGCC  
TTCAAGGTTGCTGATCCACACCCTTTCATATTCAAGCTGAAGTGACGATGAAAACAAATTTCTTTGGTACCCGA  
GATGTGTGCACAGAATTACTCCCTCTAATAAAAACCCCAAGGGAGAGTGGTGAACGTATCTAGCATCATGAGCGTC  
AGAGCCCTTAAAAGCTGCAGCCCAGAGCTGCAGCAGAAAGTTCCGCAGTGAGACCATCACTGAGGAGGAGCTGGTG  
GGGCTCATGAACAAGTTTGTGGAGGATACAAAGAAAGGGAGTGACCCAGAAGGAGGGCTGGCCCAGCAGCGCATAC  
GGGGTGACGAAGATTGGCGTCACCGTTCTGTCCAGGATCCACGCCAGGAAACTGAGTGAGCAGAGGAAAGGGGAC  
AAGATCCTCCTGAATGCCTGCTGCCCAGGGTGGGTGAGAACTGACATGGCGGGACCCAAGGCCACCAAGAGCCCA  
GAAGAAGGTGCAGAGACCCCTGTGTACTTGGCCCTTTTGCCCCCAGATGCTGAGGGTCCCCATGGACAATTTGTT  
TCAGAGAAGAGAGTTGAACAGTGGTAGCTGGGCTCACAGCTCCATCCATGGGCCCCATTTTGTACCTTGTCTG  
AGTTGGTCCAAAGGCGATTTACAATGTCATAAATATCCTTATATAAGAAAAAAATGATCTCTTATCAATTAGCA  
CTCACTAATGTACTACTAATTGAGCAACCTACGCACTCAGTTGACTACGTAAATCTGTCAGGTCTTTTGTGATTT  
CCTCTGATGCAGGAGAGGAAAAATTGTAATTGATGAAAATAATGAATGAAAATCAACAGATGAATAAATGGTTCT  
TTATAAGTG

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**FIGURE 1411**

MSSGIHVALVTGGNKGIGLAIVRDLCLRFSGDVVLTARDVTRGQAAVQQLQAEGLSPRFHQLDIDDLQSIRALRD  
FLRKEYGGGLDVLVNNAGIAFKVADPTPFHIQAEVTMKTNFFGTRDVCTELLPLIKPQGRVVNVSSIMSVRALKSC  
SPELQQKFRSETITEEELVGLMNKFVEDTKKGVHQKEGWPSSAYGVTKIGVTVLSRIHARKLSEQRKGDKILLNA  
CCPGWVRTDMAGPKATKSPEEGAETPVYLALLPPDAEGPHGQFVSEKRVEQW

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**FIGURE 1412**

CGGGAGGTCAGAAAACCGGGCCGCGGGCGGCACCGACAGCTGGGGCCCGGGTCAGGGACACGCGGAGGTCAGGCC  
GGTGAAGGCGGCAGGAAGCTGGAGCACGATCCCAGGAGGAACAATCCTGCACC**ATG**ACTCAACAGCCACTTCGAG  
GAGTGACCAGCCTGCGTTTCAACCAAGACCAAAGCTGCTTTTGCTGCGCCATGGAGACAGGTGTGCGCATCTACA  
ACGTGGAGCCCTTGATGGAGAAGGGGCATCTGGACCACGAGCAGGTGGGCAGCATGGGCTTGGTGGAGATGCTGC  
ACCGCTCCAACCTTCTGGCCTTGGTGGGCGGTGGTAGTAGTCCCAAGTTCTCAGAGATCTCAGTGCTGATCTGGG  
ACGATGCCCCGGGAGGGCAAGGACTCCAAGGAGAAGCTGGTGCTGGAGTTCACCTTCACCAAGCCAGTGCTTTCTG  
TGCGCATGCGCCATGACAAGATCGTGATCGTGCTGAAGAACCGCATCTATGTGTACTCCTTCCCCGACAATCCCC  
GAAAGCTGTTTGAGTTTGATACCCGGGACAACCCCAAGGGGCTCTGTGACCTCTGCCCCAGCCTGGAGAAGCAAC  
TGCTAGTGTTCCCGGGACACAAGTGTGGGAGTCTGCAACTTGTGGACCTGGCGAGCACAAAGCCTGGCACCTCGT  
CTGCTCCATTACGATCAATGCACATCAGAGTGACATAGCCTGTGTGTCTCTAAACCAGCCAGGCACTGTAGTGG  
CCTCAGCCTCCCAGAAGGGTACCCTTATTGCGCTCTTTGACACACAATCCAAGGAGAACTGGTGGAGCTGCGCC  
GAGGCACTGACCCTGCCACCCTCTACTGCATTAACCTTCAGCCACGACTCCTCCTTCTCTGCGCTTCCAGTGATA  
AGGGTACTGTCCATATCTTTGCTCTCAAGGATACCCGCTCAACCGCCGCTCCGCGCTGGCTCGCGTGGGCAAGG  
TGGGGCCTATGATTGGGCAGTACGTGGACTCTCAGTGGAGCCTGGCGAGCTTCACTGTGCCTGCTGAGTCAGCTT  
GCATCTGCGCCTTCGGTCGCAATACTTCCAAGAACGTCAACTCTGTCAATTGCCATCTGCGTAGATGGGACCTTCC  
ACAAATATGTCTTCACTCCTGATGGAACTGCAACAGAGAGGCTTTCGACGTGTACCTTGACATCTGTGATGATG  
ATGACTTTT**TAA**GGACCCTGGGGGCTGTGCTAGGGACCTGCAGTGGCAGAACTGCAGAGCTGAGCCTTGGCAGTGG  
GGCGTGCTTGGAAGCCACCAGCCAGCAAGCATTAAATGGGGCTGGTGCCCACTTTCCACTCAGCAGAGCTATGTCT  
AAATAAAGAGCTCACTTCCCCCAGCACTTCTTGATGACTGTGTGCCCCAAGGGCCAGGCCAGAGACCCAGGAAG  
GCAGCGACCCCTTGGGATCCCTAACCTGGAGGAAATTGCCAGGGACCCAGAGGGAGTGCCCTAATCCAACCTGGG  
GATTTTTTTAAAAGCTTCCTAGGAAGAGATGATCTCCGATGTGATGAATACGAATAAAAGGCCCTTAATGGC



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**FIGURE 1413**

MTQQPLRGVTSIRFNQDQSCFCCAMETGVRIYNVEPLMEKGHLDHEQVGSMLVEMLHRSNLLALVGGGSSPKFS  
EISVLIWDDAREGKDSKEKLVLEFTFTKPVLSVRMRHDKIVIVLKNRIYVYSFPDNPRKLFEFDTRDNPGLCDL  
CPSLEKQLLVFPGHKCGLQLVDLASTKPGTSSAPFTINAHQSDIACVSLNQP GTVVASASQKGT LIRLFDTQSK  
EKLVELRRGTD PATLYCINF SHDSSFLCASSDKGT VHIFALKDTRLNRRSALARVGKVGPMIGQYVDSQWSLASF  
TVPAESACICAFGRNTSKNVNSVIAICVDGTFHKYVFTPDGNCNREAFDVYLDICDDDDF

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**FIGURE 1414**

ACGCCCTATACAACCTTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAACTGGTCTGATCGGACT  
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTITGGGGAGAA  
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACC**ATGT**GGACTTT  
TCTGGGCATTGCCACTTTACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCCT  
GTTGTGCGTGCTGGTGTTCCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTGCGCCACCGAAACGGGGGTCTCCT  
CGGGCGCCAGCGGAGCGGCTCCAGTTGCCCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTTATTGGCTTCTT  
CTGGGCCAAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT  
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT  
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG  
AGACTTAAAAAGAGCCTGACAGAATAGTTGGAGAATTCTGTCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG  
TCTTGGAGATACAGTGGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTGATGATCAGGAAAGCAAATC  
AGAGGTTTCAAGATTCTTACCTCTGTGCAAAAACAATCAAGTGCAGAGTGGAAGAGCTTTCCATCACGGAAGATT  
CATCATGAGTCTCCGGAAGCAGCTATGGCAGAGCCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT  
AGAGGAAGATGATGTTGTGATGGGAGTTTCACTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC  
ACTGACTGTTGTTGCAGATGGGCTTTTCTCCAAGTTTCAAGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC  
TCATTTTGTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTTATTTTAGCTAACCC  
GAGTCCAGTTCTCATCTACCGGATTTTATCCAGTGAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG  
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC  
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCTTCTCCTTCATCAGTGAAGAAACGAGGTGTTCT  
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA  
ACTATGGAGAAAACTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT  
TTACTGGGCAAGAAAAACATCTCATTCTTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTGC  
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTGGTGGCGAATGTGTTGCGGG  
TCCTGTTGGGCTGCTTTCTGTATTGTCTCCTAACCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA  
TGCCGTGTATTTTGTCTTAAGTCAGAACCTTGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT  
GTACAAAGCGTGTCTGTAAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTCA**TAA**AGCTTAAAGGGG  
AACCATTTGTGAATGAATATTTGGAACCTACCAAGTCCTAAGAGACTTTTGGGAAGAGGATATATATAGCATAGTA  
CCATACCACTTATAAAGTGGAACCTCTGGACCAAGATTTGGATTAAATTTGTTTTTGAAGTTTTTGTATATAAA  
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGTTAAATAAGTTAGACATTTGAAAGAAATGATTG  
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG  
GGACATGCAAATAAAATGAAGAATGAC

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**FIGURE 1415**

MWTFGLGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGGLLGRQRSGSQFALFSDILSGLPF  
IGFFWAKSPPESENKEQLGARRRRKGTNISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT  
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVGMIHDQESKSEVQIPYPLSENNQVQSGRAFH  
HGRFIMSLRKAAMAEPNAKFIEGVVLQLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV  
SVSSHVVGFLMKNAPOFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP  
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA  
NKSFYWARKTSHSFVVNLAQALYELFSATDDSLHQLRKACFLYFKLGGECEVAGPVGLLSVLSPNPLALIGHFFA  
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEMKYMVH

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**FIGURE 1416**

CAGCCTTATAAGCTGAGGGAGTGGAGAGGCCCGGGGCCAGGAAAGCAGAGACAGACAAAGCGTTAGGAGAAGAAG  
AGAGGCAGGGAAGACAAGCCAGGCACG**ATG**GCCACCTTCCCACCAGCAACCAGCGCCCCCAGCAGCCCCCAGGC  
CCGGAGGACGAGGACTCCAGCCTGGATGAATCTGACCTCTATAGCCTGGCCCATTCTACCTCGGAGGTGGAGGC  
CGGAAAGGTCGCACCAAGAGAGAAGCTGCTGCCAACACCAACCGCCCCAGCCCTGGCGGGCACGAGAGGAACTG  
GTGACCAAGCTGCAGAATTCAGAGAGGAAGAAGCGAGGGGCACGGCGCT**TGA**ACAGAGCTGGAGATGAGGCCAGA  
CCATGGACACTACACCCAGCAATAGAGACGGGACTGCGGAGGAAGGAGGACCCAGGACAGGATCCAGGCCGGCTT  
GCCACACCCCCCACCCTAGGACTTATTCCCGCTGACTGAGTCTCTGAGGGGCTACCAGGAAAGCGCCTCCAACC  
CTAGCAAAAGTGCAAGATGGGGAGTGAGAGGCTGGGAATGGAGGGGCAGAGCCAGGAAGATCCCCCAGAAAAGAA  
AGCTACAGAAGAAACTGGGGCTCCTCCAGGGTGGCAGCAACAATAAATAGACACGCACGGCAGCCACAGCTTGGG  
TGTGTGTTATCCTTGTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1417**

MATFPPATSAPQQPPGPEDEDSSLDESDLYSLAHSYLGGGGRKGRTKREAAANTNRPSPGGHERKLVTKLQNSER  
KKRGARR

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**FIGURE 1418A**

CTGAGGAACTTGGCTGTAACCTCAAAAAGAAGATTTGATTCTTTATTTCTGGACTGCATATATATATATAACAAG  
GCCATTAAAATGTCGGGAGCCTCAGTGAAGGTGGCTGTCCGGTAAGGCCCTTCAATTCTCGAGAGACCAGCAAG  
GAATCCAAATGCATCATTGAGATGCAAGGCAACTCGACCAGTATTATTAACCCAAAGAATCCAAAGGAAGCTCCA  
AAGTCCTTCAGCTTCGACTATTCTACTGGTCTCATACCTCACCCGAAGATCCCTGTTTTGCATCTCAAAACCGT  
GTGTACAATGACATTGGCAAGGAAATGCTCTTACACGCCTTTGAGGGATATAATGTCTGTATTTTTGCCTATGGG  
CAGACTGGTGTGGAATCTTATACAATGATGGGTAAACAAGAAGAAAGCCAGGCTGGCATCATTCCACAGTTA  
TGTGAAGAACTTTTTGAGAAAATCAATGACAACTGTAATGAAGAAATGTCTTACTCTGTAGAGGTGAGCTACATG  
GAAATTTACTGTGAAAGAGTACGAGATTTGCTGAATCCAAAAACAAGGGTAATTTGCGTGTGCGTGAACACCCA  
CTTCTTGGACCCTATGTGGAGGATCTGTCCAAGTTGGCAGTTACTTCTACACAGACATTGCTGACCTCATGGAT  
GCTGGGAACAAAGCCAGGACAGTGGCAGCTACAAACATGAATGAAACAAGTAGCCGTTCCACGCTGTGTTTACG  
ATTGTTTTACCCAGAAGAAACACGATAATGAGACCAACCTTTCCACTGAGAAGGTCAGTAAATCAGCTTGGTG  
GATCTAGCAGGAAGTGAACGAGCTGATTCAACTGGTGCCAAAGGGACTCGATTAAAGGAAGGAGCAAATATTAAT  
AAGTCTCTTACAACCTTTGGGCAAAGTCATTTAGCCTTGGCCGAGGTGGATAACTGCACTAGCAAGAGTAAAAAG  
AAGAAGAAAACAGATTTTATTCCTACAGGGATTCTGTACTTACTTGGCTCCTTCGAGAAAATTTAGGTGGCAAT  
TCTCGGACTGCAATGGTTGCTGCTGTGAGCCCCGCGGATATCAACTACGATGAGACTTTGAGCACTCTGAGATAT  
GCAGATCGTGCAAAACAAATTAATGCAATGCTGTTATCAATGAGGGCCCCAATGCCAAGCTGGTTCGTGAATTA  
AAGGAGGAGGTGACACGGCTGAAGGACCTTCTCGTGCTCAGGGCCTGGGAGATATTATTGATATTGATCCACTG  
ATCGATGATTACTCTGGAAGTGAAGCAAATATCTGAAAGATTTTCAGAACAATAAGCATAGATACTTGCTAGCC  
TCTGAGAATCAACGCCCTGGCCATTTTTCCACAGCATCCATGGGGTCCCTCACTTCATCCCCATCTTCTGCTCA  
CTCAGTAGTCAGGTGGGCTTGACGTCTGTGACCAGTATTCAAGAGAGGATCATGTCTACACCTGGAGGAGAGGAA  
GCTATTGAACGTTTAAAGGAATCAGAGAAGATCATTGCTGAGTTGAATGAACTTGGAAGAGAAAGCTTCGTAAA  
ACAGAGGCCATCAGAATGGAGAGAGAGGCTTTGTTGGCTGAGATGGGAGTTGCCATTGCGGAAGATGGAGGAACC  
CTAGGGGTTTTCTCACCTAAAAAGACCCACATCTTGTTAACCTCAATGAAGACCCACTAATGTCTGAGTGCCCTA  
CTTTATTACATCAAAGATGGAATTACAAGGGTTGGCCAAAGCAGATGCTGAGCGGCGCCAGGACATAGTGCTGAGC  
GGGGCTCACATTAAAGAAGAGCATTGTATCTTCCGGAGTGAGAGAAGCAACAGCGGGGAAGTTATCGTGACCTTA  
GAGCCCTGTGAGCGCTCAGAAACCTACGTAAATGGCAAGAGGGTGTCCCAACCTGTTTCACTGCGCTCAGGAAAC  
CGTATCATCATGGGTAAAAACCATGTTTTCCGCTTTTAAACCACCCGGAACAAGCACGAGCTGAGCGAGAGAAGACT  
CCTTCTGCTGAGACCCCTCTGAGCCTGTGGACTGGACATTTGCCCAGAGGGAGCTTCTGAAAAACAAGGAATT  
GATATGAAACAAGAGATGGAGAAAAGGCTACAGGAAATGGAGATCTTATACAAAAAGGAGAAGGAAGAAGCAGAT  
CTTCTTTTGGAGCAGCAGAGACTGGACTATGAGAGTAAATTCAGGCCCTTGCAAGCAGGTTGAAACCCGATCT  
CTGGCTGCAGAAACAACGAAGAGGAGGAAGAAGAAGAAGATTCTTGACACAGCATGAATTTGAGTTGGCC  
CAATGGGCCTTCCGGAATGGAAGTCTCATCAGTTTACTTCATTACGGGACTTACTCTGGGGCAATGCCGTGTAC  
CTAAAGGAGGCCAATGCCATCAGTGTGGAAGTGAAGGAGGAGTGCAGTTTCAAGTTTGTCTGCTGACTGACACA  
CTGTACTCCCTTTGCTCCTGAATTACTTCCACTGAGATGGAAAAAACTCATGAGGACAGGCCTTCCCTCGC  
ACAGTGGTAGCAGTAGAAGTCCAGGATTTGAAGAATGGAGCAACACACTATTGGTCTTTGGAGAACTCAAGCAG  
AGGCTGGATTTGATGCGAGAGATGTATGATAGGGCAGGGGAGATGGCCTCCAGTGCCCAAGACGAAAGCGAAACC  
ACTGTGACTGGCAGCGATCCCTTCTATGATCGGTTCCACTGGTTCAAACCTGTGGGGAGCTCCCCATTTCCAC  
GGCTGTGTGAACGAGCGCTTGCCGACCGCACACCTCCCCACTTTTTCCACGGCCGATTCCGACATCACTGAG  
CTGGCTGACGAGCAGCAAGATGAGATGGAGGATTTTATGATGAGGCATTCTGTGATGACGCCGGCTCTGACGCA  
GGGACGGAGGAGGATCAGATCTTTCAGTGACGGGCATGACCCGTTTTACGACCGATCCCTTGGTTCAATTTA  
GTGGGAAGGGCATTGTTTACCTGAGCAATCTGCTGTATCCCGTGCCCCGATCCACAGGGTGGCCATCGTCAGT  
GAGAAAGGTGAAGTGCAGGGGATTTCTGCGTGTGGCTGTACAGGCCATCGCAGCGGATGAAGAAGCTCCTGATTAT  
GGCTCTGGAATTCGACAGTCAGGAACAGCTAAAATATCTTTTGATAATGAATACTTTAATCAGAGTGACTTTTCG  
TCTGTTGCAATGACTCGTTCTGGTCTGTCTTGGAGGAGTTGAGGATTGTGGAAGGACAGGGTCAGAGTTCTGAG  
GTCATCACTCCTCCAGAAGAAATCAGTCGAATTAATGACTTGGATTTGAAGTCAAGCACTTTGCTGGATGGTAAG  
ATGGTAATGGAAGGGTTTTCTGAAGAGATTGGCAACCACCTGAAACTGGGCAGTGCCTTCACTTTCCGAGTAACA  
GTGTTGACAGGCCAGTGAATCCTCCAGAGTATGCAGATATCTTCTGTGAGTTCAACTTTTTGCATCGCCATGAT  
GAAGCATTCTCCACGGAGCCCCCTAAAAACAATGGCAGAGGAAGTCCCCGGCCTTTTATCATGTGCAGAATATT

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**FIGURE 1418B**

GCAGTGGAGATCACTGAATCATTTGTGGATTACATCAAAACCAAGCCTATTGTATTTGAAGTCTTTGGGCATTAT  
CAGCAGCACCCACTTCATCTGCAAGGACAGGAGCTTAACAGTCCGCCTCAGCCGTGCCGCCGATTCTTCCCTCCA  
CCCATGCCACTGTCCAAGCCAGTTCCAGCCACCAAGTTAAACACGATGAGCAAAACCAGCCTTGGCCAGAGCATG  
AGCAAGTATGACCTCCTGGTTTGGTTTGGATCAGTGAAGTGGAGCCTACAGGAGAGTATATCCCAGCTGTGGTT  
GACCACACAGCAGGCTTGCCTTGCCAGGGGACATTTTTGCTTCATCAGGGCATCCAGCGAAGGATCACAGTGACC  
ATTATCCATGAGAAGGGGAGCGAGCTCCATTGGAAAGATGTTCTGTAAGTGGTGGTAGGTCGTATTTCGGAATAAG  
CCTGAGGTGGATGAAGCTGCAGTTGATGCCATCCTCTCCCTAAATATTATTTCTGCCAAGTACCTGAAGTCTTCC  
CACAACCTCTAGCAGGACCTTCTACCGCTTTGAGGCTGTGTGGGATAGCTCTCTGCATAACTCCCTTCTTCTGAAC  
CGAGTGACACCCTATGGAGAAAAGATCTACATGACCTTGTCGGCCTACCTAGAGCTGGATCATTGCATCCAGCCG  
GCTGTCATCACCAAGGATGTGTGCATGGTCTTCTACTCCCAGATGCCAAGATCTCACCACCACGCTCTCTGCGT  
AGCCTCTTTGGCAGCGGCTACTCAAAGTCACCAGATTGCAATCGAGTCACTGGCATTACGAACCTCAGCTTATGC  
AAAATGTCAGACACAGGTAGTCCAGGTATGCAGAGAAGGAGAAGAAAAATCTTAGATACGTCAGTGGCATATGTG  
CGGGGAGAAGAGAACTTAGCAGGCTGGCGGCCCGTGGAGACAGCCTCATCCTTGAGCACCAGTGGGAGCTGGAG  
AAGCTGGAGCTCCTACATGAGGTGGAAAAAACCCGCCACTTTTTGCTGCTGCGTGAGAGACTTGGTGACAGCATC  
CCCAAATCCCTGAGCGACTCGTTATCCCCAGCCTCAGCAGTGGGACCCTCAGCACCTCCACCAGTATCTCCTCT  
CAGATCTCAACCACTACCTTTGAAAGCGCCATCACACCTAGCGAGAGCAGTGGCTATGATTACAGGAGACATCGAA  
AGCCTGGTGGACCGAGAGAAAGAGCTGGCTACCAAGTGCCTGCAACTTCTCACCACACTTTCAACAGAGAATTC  
AGCCAGGTGCACGGCAGCGTCAGTGACTGTAAGTTGTCTGATATCTCTCAATTGGACGGGATCCCTCTGAGTCC  
AGTTTCAGCAGTGCCACCCTCACTCCCTCCTCCACCTGTCCCTCTCTGGTAGACTCTAGGAGCAACTCTCTGGAT  
CAGAAGACCCCAAGCCAATTCCCGGGCCTCTAGTCCCTGCCCAGAATTTGAACAGTTTCAGATTGTCCCAGCT  
GTGGAAACACCATATTTGGCCCGAGCAGGAAAAACGAATTTCTCAATCTTGTTCCAGATATTGAAGAAATTAGA  
CCAAGCTCAGTGGTCTCTAAGAAAGGATACCTTCATTTCAAGGAGCCTCTTTACAGTAACTGGGCTAAACATTTT  
GTTGTCTGTCGGTTCGGCCTTATGTCTTCATCTATAACAGTGACAAAGACCCTGTGGAGCGTGGAATCATTAACTG  
TCACAGCACAGGTGGAGTACAGTGAGGACCAGCAGGCCATGGTGAAGACACCAACACCTTTGCTGTCTGCACA  
AAGCACCGTGGGGTCTTTTGCAGGCCCTCAATGACAAAGACATGAACGACTGGTTGTATGCCTTCAACCCACTT  
CTAGCTGGCACAATACGACCAGGTCACTCTGGCTTCCGAGATCATCAGAGAAGATAAGTCTGTCTCTTTACAGCTGC  
CAGTAACTTTTCCAGGATGAGAGGGGAAAAAGAAAGCCTCCAGTGACTTCAGTTGCTTTGCCAGTTGTCTTGGGA  
TTGTTTTACACCATCCTTTACTTCCCTTGCTCAGACCTCTCTGTTTACCATTGCTCAGGCATTACAGAAAGTAT  
CTGCTCACTCCCACTTGGTGAGTCTCGGCCCTTGAGGTTGCTGACTCTCAGGCGTTAGGCAGCTGGATGACTTCC  
CGCTTCACGCAGCAAAGGCCAGGGGCTTGCGCGCCTCTGCAGAGTTGTTGCTAGGGAGACTTGTGTCTCATCCA  
CAACCTTGTTTTCTCACTTCCCTGGTTGGGCTCATCTCTGAAGAACAGGTCTCCAGCTTCGCTCCTTATCACTGCA  
TTGTGAAGAGGAGGAAAAGTGAATCACGGAGAGAGAAAGGAAAGGATAGAATCACAGGCTGCGTCTGCACCTGAA  
AAGTGACCCGCGGAACTCTATGGCGGATTTTTTTTTTAACCTTCTTCTTCTGTTAAACATAGGTCACTAACT  
GTGATGTTATTTGTTTTCTAAGTGGTATGTGAGATTTCTAATGTAGTTAGAAGTTTCATTGTCTGATGGACACA  
ATATGCCCTTCCGGTCTATTCAAACCAGCAGGATCTGTGCGGTGCTTAGAGATGGCTGCCTGGACTGGAATCAAA  
TCTAATTTCAGGGAATGAAGATGGAATTTGAAGGTCACTTTTAAATTAAGTCATTGATGCTGCTGTTACAGAG  
TGTGACAGAGGATCCATGTCTGTGACACAGGACGGTGGGAAGCCTGAGAGAGAGTGAAATTATGTGATACACTGA  
AATGACTTTTGTTTTCTTAACTCATACAAACTGGTTTGGAAAGTCTTTGCTTTGGAAGCGTCAGACATTAG  
AACAGGCCAACTGGACTGTCTGTTTCATAGCGTGCCTGAATAAGAAGGCCTCTTAGGGAGCCAGAGGGAGCAGAG  
TGGTCGTGTCCTGCGTGTCTTACCCTCTGGGGCGCCCTGTGCGGCTGGCAGGTGCAGACAGCCTTTGCTGG  
TCCCCAGCACGTCCAGGGTGGGTGCTCCCTTGCCCCGACAGAACCATCCCCACTGTGAGGCTGTGAGAGATTTGTG  
GCAGGAAGTGTATGAGGCTCTAGTTGTTGCTGTTGTGGCGGGAAAGTTAAGAAACATAGCCCTTAAGGAAACC  
ACCTTTATGTATTTTCTTAAAGCACGCCTTTAAATAAGCAAAAACTTTAAAGGCAGGAAAGAGAATTCTTAGGC  
AAATTCAGAGAAATAAGTGCTAGTTAATACTAATCACCTCCTCCTGTCTCTCATCCTCCTTTCTCCCATCAAA  
GCAAAATATGGCCTCACCACCAGCCCCAAATCAGTGCTCAGACCCCTCTGTGTCTGTGTGCCCTCCTGGGAGTC  
AGTCAGCGCTCAGGCCAGGACTGTGCAGGGCCAGCCAGCCCATGCGCTAGTCAGGAGCACAGGCAAGGGGTGCTT  
GTGGCAGTGGCCGGGCACCTGAGCCCCAGCTCGTTGTTAAACGTGCTGACGGCAAGGGGCAATGGAGTGAGTTTC  
CCAATAAGAAACCCTATTATATATTTTTTCCCTTCAGTCACATAGACTTCAGACAACCTCTCTATTTTTTATG

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**FIGURE 1418C**

GATTTTTCAGCTCATTTCAGATGAAGGAACTAAGTCATTGTGAACTGTCTCTTGAGATCTAAAAACAAGATGACT  
TTTCCTGGCACATATTCCAAAGCAAAGACTTTGTTGCCTGCTGCTTATTGTCTAATTTACAGGGATATTTAATTT  
TGTCAGGTCTATGTATATTTATCCAGCTATACTTACTTGACACAGTGGATTGGAGAGAAAAGGATTCTCCAGTGTGC  
ACACTCATCGGTACTCTTTCTGCATTTCCCTCGTGCTGTGTCCCGCTCGGGTTCCAATGGACAGTATCAGGGCTT  
GTTTGACTTAGGTCTTTTCAGTTTTCTTTTCGGTTCCCTTTTAAAAATGTGATTGTTAACCTGCCTCTTGAAAGAT  
TCAACCGGGTGTGGTGGCTCACGCCTGTAATCCAGCACATTGGGAGGCCAAGGCAGGTGGATCACCTGAGGTCA  
GAAGTTTGAGACCAGCCTGGCCAACATGGTGAAACCCCGTCTCTACTAAAAATACAAAAGGTAGCCAGGCGTGGT  
GGCGTGTGCTGTGGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGAATGGCTTGAACCTGGGAGGTGGAGGCTGC  
AGTGAGTTGAGACTGCGCCATTGCACTCCAGCCTGGGTGACAAAGCAGGACTCCGTCTCAAAAAAAAAAGAAAAGA  
TTCATGATGCTGCTGCTCCCAGAAGGTTTGCTGGATGTGTTTACATAGGACTCTAACTTGTGTGCACTACAGTTG  
TTCACCAGGGCCAGTGATTACCCCAGTGTGTGGCCAGACCATGACTGTGTAGCAGGAATGTTTTAATTTGTGCT  
TCCTTAGTAAATTGAAATATCAGCTGAGAGATTATTTGCTGCTGTTATTCAAAGGCCATTTATGAAGTTAGTAT  
TTGAGCCCCATAAGATCTTTAAAAAGCCTCCAATCATTTAAAGGAAGAAATCAGAGTTGCTATAAAATTCAGTAA  
AAAGCTCATAGCCAAACGGCTGTGCTCAGATGGAAAGTCTGAGCTGAGGTTGGTCTCTTGCCAAACCGTGGCTGT  
TGTGTGTTGTTCTTCATGTCTTCGAGTTCATTTTTTTTCATTCTGCCTATTCTGGCATCAGCTCACTTGAGGAGT  
CCCTCAGCCTTCTTGTATTTAAGGCATCGTCTTAGACTTTGTGGCTCTAAAGTACCTGTCTGTTGAGATTTCAAG  
TCTCTTGTCAACCATCCTCACACATGACAACAAAACCCATAATGCATAAGTGGCCTTTTTGAACCAAGACTTTGCA  
AACTGATCTCTCCCCCGTGAAGGAGTTGAGCACATTAGCAACAATGTACATTAATTTTGGATTTTCATTTTCATG  
TTTTATTTTGTAAATATTATCTGATGTTTGGAGCTTGAGTATACAGACTGTAAATATAGTTCTTGTATTTGTACT  
AATTCTGATTCTTTTGCTGTATAGCCTTAGATGTGCAATGCAGACACTATCTAACTGTGTGTGGTAACCTTGCGT  
CACGGAGCTGTTAGTGAACGAGGTAAAAATAATAAAGGTACAGCCAGTGCAAAAAAAAAAAAAAAAAAAAAAAAAA

A



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**FIGURE 1419**

MGSLTSSPSSCSLSSQVGLTSVTSIQERIMSTPGGEEAIERLKESEKIIAELNETWEEKLRKTEAIRMEREALLA  
EMGVAIREDGGTLGVFSPKKTPHLVNLNEDPLMSECLLYYIKDGITRVGQADAERRQDIVLSGAHIKEEHCFRS  
ERSNSGEVIVTLEPCERSETYVNGKRVSQPVQLRSGNRIIMGKNHVFRFNHPEQARAEREKTPSAETPSEPVDWT  
FAQRELLEKQGIDMKQEMEKRLQEMEILYKKEKEEFADLLLEQQRLDYESKLQALQKQVETRSLAAETTEEEEEEE  
EVPWTQHEFELAQWAFRKWKSHQFTSLRDLLWGNVYLKEANAI SVELKKKVQFQFVLLTDTLYSPLPPELLPTE  
MEKTHEDRPFPRTPVVAVEVQDLKNGATHYWSLEKLRQLDLMREMYDRAGEMASSAQDESETTVTGSDPFYDRFH  
WFKLVGSSPIFHGCVNERLADRTSPSTFSTADSDITELADEQQDEMEDFDDEAFVDDAGSDAGTEEGSDLFSDGH  
DPFYDRSPWFILVGRAFVYLSNLLYPVPLIHRVAIVSEKGEVRGFLRVAVQAIAADEEAPDYGSGIRQSGTAKIS  
FDNEYFNQSDFFSSVAMTRSGLSLEELRIVEGQGQSSEVITPPEEISRINDLDLKSSTLLDGKMMVEGFSEEIGNH  
LKLGSATFRVTVLQASGILPEYADIFCQFNFLHRHDEAFSTEPLKNNGRGSPLAFYHVQNIAVEITESFVDYIK  
TKPIVFEVFGHYQQHPLHLQGQELNSPPQPCRRFFPPPMPLSKPV PATKLNTMSKTSLGQSMSKYDLLVWFEISE  
LEPTGEYIPAVVDHTAGLPCQGTFL LHQGIQRRITVTIIEHEKGSELHWKDVRELVVGRIRNKPEVDEAAVDAILS  
LNIISAKYLKSSHNSRRTFYRFEAVWDSSLHNSLLNVRVTPYGEKIYMTLSAYLELDHCIQPAVITKDVCVMVFYS  
RDAKISPPRSLRSLFGSGYSKSPDSNRVTGIYELSLCKMSDTGSPGMQRRRRKILDTSVAYVRGEENLAGWRPRG  
DSLILEHQWELEKLELLHEVEKTRHFLRLRERLGDSIPKSLSDSLSPSLSSGTLSTSTSISSQISTTTFESAITP  
SESSGYDSGDIESLVDREKELATKCLQLLTHTFNREFSQVHGSVSDCKLSDISPIGRDPSESSFSSATLTPSSTC  
PSLVDSRSNSLDQKTPEANSRASSPCPEFEQFQIVPAVETPYLARAGKNEFLNLVPDIEEIRPSSVVS KGYLHF  
KEPLYSNWAKHFVVRRPYVFIYNSDKDPVERGIINLSTAQVEYSEDQQAMVKTPNTFAVCTKHRGVLLQALNDK  
DMNDWLYAFNPLLAGTIRPGHLASEI IREDKSVSFSCQ

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**FIGURE 1420A**

GGCGGCTGTCGCGGGGACCGGAGGCGGAGGCTGCAGCGGGCACTGCGGCGCCGAGGCGGGCGGCAGGACGGGAA  
CCACGCGAGCTGCAGCCAGCTAGGTCTTGACTCCACTAACGGGGACTTCTCATACGGCTTTGAACTTGGACCTTG  
GTGCATAAGCAAATGTAATCAGCGAATTGTAATGGAAAGCATATGGACAGGTCTACGCCACATCACTTAGGTGC  
TAAGAGATGCCGTTTGCAGGCCTCATCTCTGCTTGAGAAATCGGGGGCTCCAGGCACTAGAAGAGCCGGCTGATCC  
TGGGCTCCTAGCTTGAATAAGCCTTCACTTCCAGCTGCTCTCCCCAACGGCTGTGTAAACTACTCGTTTCTCTTA  
ATGATGGGTATTGGTAAGAATAACCACATCCAAATCAATGGAGGCTGGAAGTTCAACAGAAGGCCAAATACGAAGAC  
GAGGCAAAGCACCCAGCTTTCTTCACTCTTCCGGTGGTGATAAATGGAGGCGCCACCTCCAGCGGTGAGCAGGAC  
AATGAGGACACTGAGCTCATGGCGATCTACACTACGGAAAACGGCATTGCAGAAAAGAGCTCTCTCGCTGAGACC  
CTGGATAGCACTGGCAGTCTGGACCCCCAGCGATCAGACATGATTTATACCATAGAAGATGTTCCCTCCCTGGTAC  
CTGTGTATATTTCTGGGGCTACAGCACTACCTGACATGCTTCAGCGGCACGATCGCAGTGCCCTTCCCTGTTGGCT  
GATGCCATGTGTGTGGGGTACGACCAGTGGGCCACCAGCCAGCTCATTGGGACCATTTTCTTCTGTGTGGGAATC  
ACTACTTTGCTACAGACAACGTTTGGATGCAGGTTACCCCTGTTTCAGGCCAGTGCTTTTGCATTTTGGCCCCT  
GCTCGAGCCATCCTGTCTTTAGATAAATGGAAATGTAAACACCACAGATGTTTCAGTTGCCAATGGAACAGCAGAG  
CTGTTGCACACAGAACACATCTGGTATCCCCGATCCGAGAGATCCAGGGGGCCATCATCATGTCTCTCACTGATA  
GAAGTAGTCATCGGCCTCCTCGGCCTGCCTGGGGCTCTACTGAAGTACATCGGTCCCTTGACCATTACCCCACG  
GTGGCCCTAATTGGCCTCTCTGGTTTCCAGGCAGCGGGGGAGAGAGCCGGGAAGCACTGGGGCATTGCCATGCTG  
ACAAATATTCCTAGTATTACTGTTTTCTCAATACGCCAGAAATGTTAAATTTCTCTCCCGATTTATAAATCCAAG  
AAAGGATGGACTGCGTACAAGTTACAGCTGTTCAAAATGTTCCCTATCATCCTGGCCATCCTGGTATCCTGGCTG  
CTCTGCTTCATCTTCACGGTGACAGATGTCTTCCCTCCCGACAGCACAAAGTATGGCTTCTATGCTCGCACAGAT  
GCCAGGCAAGGCGTGCTTCTGGTAGCCCCGTGGTTTAAAGGTTCCATACCCATTTTCAGTGGGGACTGCCACCCTG  
TCTGCGGCCGGTGTATCGGCATGCTCAGTGCCGTGGTCGCCAGCATCATCGAGTCTATTGGTGACTACTACGCC  
TGTGCACGGCTGTCTGTGCCCCACCCCCCCCCATCCACGCAATAAACAGGGGAATTTTCGTGGAAGGCCTCTCC  
TGTGTTCTTGATGGCATAATTTGGTACTGGGAATGGCTCTACTTCATCCAGTCCCAACATTGGAGTTTGGGAATT  
ACAAAGGTCGGCAGCCGCCGCGTGATACAGTGCGGAGCAGCCCTCATGCTCGCTCTGGGCATGATCGGGGAAGTTC  
AGCGCCCTCTTTGCGTCCCTTCCGGATCCTGTGCTGGGAGCCCTGTTCTGCACGCTCTTTGGAATGATCACAGCT  
GTTGGCCTCTCTAACCTGCAGTTCATTGATTTAAATTTCTTCCCGGAACCTCTTTGTGCTTGGATTTTCGATCTTC  
TTTGGGCTCGTCCTTCCAAGTTACCTCAGACAGAACCCCTCTGGTACAGGGATAACAGGAATCGATCAAGTGTTG  
AACGTCCTTCTCACAACTGCTATGTTTGTAGGGGGCTGTGTGGCTTTTATCCTGGATAACACCATCCCAGGCACT  
CCAGAGGAAAAGAGGAATCCGGAATGGAAGAAGGGTGTGGGCAAAGGGAACAAATCACTCGACGGCATGGAGTCG  
TACAATTTGCCATTTGGCATGAACATTATAAAAAAATACAGATGCTTCAGCTACTTACCCATCAGCCCCAACCTTT  
GTGGGCTACACATGGAAAGGCCTCAGGAAGAGCGACAACAGCCGGAGTTCAGATGAAGACTCCCAGGCCACGGGA  
TAGCCTTTGCTGTGCCCTGTGGCCTGGCCGCACTGAGGCATGTATCTGTAGTTCTTGTGAGTAACAAGAAGTA  
AAATACATGTTTGTATATCTACATTTACATTCTGCGCCCCAGAGCTAAGACAGACTGCGAATCACTTTTCTGCTG  
TGAGGGTGATGGTGCCTGATGCGGTGTCTCGCCTATCTCCTTATTTAAGCCCTTAACTCCTTGCCCTTTGAGAGT  
GTCCATTGCTGGCCATGGTCACTAAATTTGAAGTTCCAGTCCCTCCCTTTGGAGTGGACATTTAAATCTGCAGCC  
ATTCTTGCTTCAGTTCCCTTCCACCACCCAGGGCTGGCTTTCCCTATAAGCCACCTCCAGGGTCCAGGGGCTTTC  
TCTCTCTCTCCGAAGCCCTGGACCTGTTTCTTGTCACTTGACCCTCGTCTGTGCCGCGGAGACCTCCTCTGA  
CCAAGGGGCACTAGTATGCCTTGGCTATCATGACTGACTGGCCCAGTATGATTCTGTTGTGCTGATCTCCCGG  
AGGAGGAGGCTGTTGACCTGAAAACAGTGGCGTGGCTCCCTGTGCCCAGATCTGGCCATGGGTGAGGCCTGCAC  
AGATGTTGAATGAACATCTGTTTGGGGCATTGGAGGGAAAAGGAAAGGACCCTGAAGCCAATATCTGATTCTCGG  
CTGCACCTTCTCTTGGCCACCCTGGCCCTGACCGGGCCAGCACGTGCACACTGGCCTCTTTTCAATTTCACTAGTG  
GCCGAGACACCTCTCTGGCATTATCACTGTTGGCCGGTGTGATGAGTATAGAGTGCCACCCAAGGCACCAAGTC  
ACACAAGCTGATGGGCGTCTTGGCTCTGCCGTATGTGGATGTTATTGTGCGCGCGTCTATAATTACAAGGTTT  
TATTCTATTTAATGTTATTGACTATAGCAGATTTTGGAAATCAGTGTTTTCCATGTGACCCTCTTTCTTGGCAT  
CCCTATTCTTGTCCCCCACCCTCTTCCCCCATCAAGAAAAAGAACCCAGCATTGTAAAGCTGTGGACACCAT  
CAGGGAAGCTTGTGTAAACGGCTTTTGAAGGCCAGTAACCATTGTTGTGGTTGTGTTTTGTATTGCTTGATACCA  
TGAAAGTGTAATACTGTAATGCCTAATCTATTTATCAAAACTGACTACTGGACCGGAGCCCAGAAACCATGGGT  
CAAGTTACACGTGAATTTGTTTTGTGAAGAAGGGAAGCTGGGGCAGGTAACACGCAGAGCCGCCACGTGGAACGG

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**FIGURE 1420B**

TCTGICCCGCCGGTCTGTCCCGCTTGCCGGGCTTCTGTTGCAAGTCTTGGCTTAAGGAGACTTCTGTGGGTTGCC  
ATGTCGCACGTCCGTTAGATCTTGATTTTACAGGTGAGGGTGGTTGCCAAAGGTGATAAGAAAAGCAGCCAACAG  
GCTCCCTCTCACTTAAGAGAGTTCTAATTAATAACACTAAATTCTTCTGAGAAATGACTCCTCTTGTTGGTTGGTT  
TGAAGTTTTTTCAGTGAAGGAAAAGGCCTGAGATAGGAAGCAGTGCCCTCGCTTCATGAGGTGGCACATCTTCGGT  
GGCCGTTGGCCTGGTCGAGCTTTGGTCAGCTGCGTGCGGTGCCGTGTCTCCTGTCTCCAGCGGCAGGGCATGGTTCT  
TGGCAGCCTGGTGTCCACACGGTGCAATTCCTGTCCCCCTCGGCCCCAGGCTGGCTCAGCTCTCCAGTGCTGCGGC  
GCTGTCTTTGCAGCATTGCCATGTACCCGTAGCCCCCTTCACTCTTGGAAGTTTGGGGCTTCAAGGTTTATTCTG  
GCAAGAACACCTCGGAGCCACTGCATTGTTTTGCCAAAACTTACTGCAGATTAAAGTAAAGAACTTAGATGCTAA  
ATTACATCTAATTTTGTATGTTTTTTTTAAATGTGTCTTTGATGCATACTTTAGAAGCACACTGGCTCGCGGTTTC  
CATCCCTCTTGCCCTTGGGACACTCTTGAGGCTGGCAGCCCTCCTGCAATGAGTTGCTCTCAGTTCCTTCTGTTTG  
GATTTTGCTCAACATCTCCAGTTTCTCTGCTCTGAAAAATGGGGAAAAGTCTGTAACATCCCAGAGATTTGCAAT  
CTTCTAGCTCTCCAGGTGAGCAGAAAGACCAATATCCAAATAAAAGCCTGAAAGCCATTGGTGATCCAGGGGCA  
CCTTCTCTTCAGCTTGACTGGGCGTCTTCCGCTGCATAACACTCAAGGTGTCTGCTCTAGTCATCCAGAAACCCA  
CTCCCTTCTGAAGCCCTCCTTGGGCCGGGTTGTATCAGGAGGATTCAACCCCGCTAACATGTGGGGTGCCTCT  
GTAGGCCTTCACACAGGGAAGGAAGCCCTACCTTTCAACTCCTGTTGGAGTGAGAGTTTCTGTTCTGATTCCA  
CTGTGGCCAACCCAATAATTCTGTCCGAGGAGGGGTAAAGGGAATAGGAGGTGGGGAGCAAAGAGGGCAGCCTGAC  
TAGATGCCCTGCTGAATCTGGTACTTTCTGCACAGCCTTGAGTGATTGGAGTCCCCTAATGACTAATAAACTTG  
AACATGTAAACACACACACACACACACACACACACCATTTTAGGAAGTGTTCTCCTACTGGAAAATATGCTACAG  
AATGAAAGTTTGTAAATTGAAAGAAAAAGAATGTATTCATCTGCTTCTTGGGTTTAAGCACACACCTGAAGGGGAG  
ATATTGGGGGACACGGTGGCCACTCGCGGTCTGTGTGCATGACACTTCCATTACATCATTGGCCTGCGTTGCTG  
GGGCTTTGAACCACCACCCCGTACTTTGTTTTGCCGTGAGAGTGTGTAATAATTTTTGGATGTGAATGTCCTTG  
CAGGCCGGTTAGTCTCCAGTTTCCACAGAGACCACCTACCCACCACCTTCCCAGGTACCTGCCTGGTCCCTGAA  
AGAAAGCATTGTGTGGGCAATCCCAACATGAAATGTAGACAGCGTGAATACGGACAGGAGGTGATGCCATATTC  
ACAGTGGGGGATGGAGGGCCCCCACCCTGCTTCACAGAATAATGGGAAGTACTCTAGTCTTTGTAAGCAATTT  
TCATTCTCATTAGGAAGTTAAATGTAGATTACACAGATACATTTACTTTCAGAATCCTCAAGAGGATTTCAAATGC  
TAACTTTTAGTTTTCTTGGGATTGATCAAGGCAAGAGAAGTGGCTTTAACCATGCCAGCCAGAATGAAGCATCATG  
GGTCTGATGGTTTTCCCGTTTTTCATGGTAACAAATTCGCACAGAGGTTTTGCTTTATGCTGTAGAATACCGACTT  
TCATGATGACAACCTTGGTTTTATGCATGAATATTGCAGTATTTCCATATAGCAAAATAACATTTCTACCCAGGATA  
ATAGTCACAGTTTTCCAGGGAGGGAATGATATAATTTTCATGACAATGTGCATGTGATGATAGAATTTCTCCATTG  
ATGAATCTCTAGTATGTGTGTATACTTTATTTACCCATACGTATATTTTATGACCATGAGCTAAGTTGTTATTTT  
TTTCATTATATCCCTGCTGAAATATTGGTACTAGCAACTTAAAGTTGGCAAGTCTCATCTTCAGTAATACGGAT  
GCCATGGGAGTGGCCAGGCCAGATTGAAGGTGAATATGGAGCAGTAGCAGAAGCCTCATTCCAGAACCCATCTGG  
CCAGAGAAGCAGCAGCATCCTGGGGGATGGCCGTGCATGGGGTGTACACTCGCTATAGGCATAGGCCCGGCATGG  
CTGTCGCTGGACGCCAGCTGTGCACACCCAGCCACACCTGCTGCACGCCGCGTTAGTGTGCGGCTCCGGGCTGA  
GCATTGCAAAGCTCGCTTCTCCAGGGAGCCTCCTCTTGCTTTGGAAAAGAGCCCAGGGACTTAACGTGCTGCC  
TGTTGTACTCTGTCCCTCATGACTTTTTAGACACAGGGACTAGGACATCGACCACCCTCTGCCCCCTCCTGCAGT  
CAGAACCCGAGTAGTGCAAGAACGGCCACCCGGTTTTGCCAGCGTTCAGCGTCTGCCCATGGACCCATAAGGCAC  
ATTAGCGTTGGGGTCTCTTTTACAGCAGCCTCACAGACATTCCCGTCTCTTCTGGTTGGTGGTTGACTGTGTTTCA  
GCATCACTCTACCTCCCATGTCCTTAGCATTGCTGTGCGTGTTCAGGCACTTAGGACACCCTTCCCCACGTT  
GCCATCTTACTGACAGTTCAAATGACTCTCCTTTTTTGTTCGTTAGTAACAATCTTCATTTGACACCTTAATACA  
TTTCTGACTGTTCTTAAACAGTGGGGATGCCTATATTTTCTTGGATTTTGTGACTGACTTTGGCTATATATA  
CCTTTCTGGGGTTTTGTTTGTTTTTTATTTTTATTTTGAATTACCGAGGGTATTTGGGGTGGGGTTGTTTTTGGAG  
ATGTGTAATCTTTTTATGGAGTTTTTAAAAAGAATTTTCATATTGTTTTTCTAACATGGCTTCATTAAACGTTTA  
AGTATTTTAAAAATATGTAATATTGGACCAGATGTTGTGAATAATAGTAGAGATAAAGCTATTTTTATTCTGTAT  
TTTTAAACTGTTCGGTACAAATAAAAGCTCTCCTGGACAC

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**FIGURE 1421**

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC  
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCTTCAAC  
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTTTGTAGACTTGGAACCCACAGTCATT  
GATGAAGTTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC  
AATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTTGGACCGAATTCGCAAGCTG  
GCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAACCTGGTTCTGGGTTTACC  
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC  
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGT  
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTAGAAACCTCGATATCGAGCGCCCAACCTACACT  
AACCTTAACCGCCTTATTAGCCAGATTGTGTCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT  
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCCCTGTC  
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC  
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC  
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC  
TTCAAGGTTGGCATTAAATTACCAGCCTCCCACTGTGGTGCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG  
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC  
AAGCGTGCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTTCAGAGGCCCGTGAGGACATG  
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTCTGACGGAGAGGATGAGGGTGAAGAGTATTAA

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**FIGURE 1422**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSFT  
SLLMERLSVDYGKKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLTVAEITNACFEPAN  
QMVKCDPRHGKYMCCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAVAEAWARLDHKFDLMYAKRAVHVHVVGEEMEEGEFSEAREDMAALEKDYEYEVGADSADGEDEGEY

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**FIGURE 1423**

AGTGTGGTTTTAGTTTTTCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT  
CCTGGGGCGTTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGGCCGGGCGTTTGAGGGCTACTGCCACG  
CAGCGTTTTCTGGAGCCTGCCGGCTGGTGCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCTCTTTATCTCAGG  
CTCTCCAGGAGGCCGGGGGGCCACTCCGCCTATCGCTCCCCCTCGGCTACGCTGCCACTCCAATGCCCCGCAGGT  
CGCGAGCTGCTGTTCTTTTGAAGGCGCCGGAGAACCAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG  
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCTCCCTCTGCGCGGCAGCCCGTTCGCG  
GGCCCTCAAGGGGAAGCCCAGGCCAGG**ATG**CGCCCCGGGTTCGCGCGGTGGCCGGGCTCCTGTTGCTGGCGGCCG  
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG  
AGCCTGTCGGCGGCGCAGCTCCAGCACTTGTGAGGAGCAGATGGGAGCCGCCTCCCGCGTGGGCGTCCCGGAGCCT  
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTTCCCTTCATGGCTTTTCAAATGCTACCCAA  
ATAACCAGCTCCAAATCTCTGTCTGTCTGTCCAGCAGTCTTACAGCAATTGAACCTTTCACCCATGTGAGGATCGG  
CCCAAGCACAAAACAAGACCAAGTCATTTCAGAAGTTTGGGGATATGGATTCTGTGCTGACGATTATTAATCTG  
GCATCTCTCCTCGGATTGATTTTGACTCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTG  
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACCTATTCCAGAGGCATTTGGATTGTATCCCAA  
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAAGAATGCTA  
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCCTCAAGAAAA  
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAATCCTGCTGTACAGAAGCTAAT  
GGACATATCCATTTTGATAATGTGAGTGTGGTATCTCTACAGGATGGAAAAAAGAGCCAAGTTCATGTACCTGT  
TTGAAGGGGCCCAAACCTGTGAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTC  
ATCGATGGCCTGGCGATTGGGGCTTCTGACCTTGTCTCTCCTTCAGGGACTCAGTACTTCCATAGCAATCCTA  
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG  
CTATTCAACTTCCTTTCTGCATGTTCTGTCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTTCGCT  
CCAAATATTATATTGCACTTGTGAGGCGATGTTCTCTATATTTCTCTGGCAGATATGTTTCCAGAGATGAAT  
GATATGCTGAGAGAAAAGGTAAGTGAAGAAAAACCGATTTACCTTCTTCATGATTTCAGAATGCTGGAATGTTA  
ACTGGATTTCAGGCCATTCTACTCATTACCTTGTATGCAGGAGAAATCGAATTGGAG**TAAT**AGAAAATGGAAGAT  
GGTGTGTTAATAAAGGCATTTAATAGATAAAAAACATCTCCAAAAAGGATTTTGAAGCTGATCCTATTTAGTTAA  
AAAGATAATTTTGTCTTCAACTGTAGGTCCAGAAAACATAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT  
GTTGTTAAAAATGCTTCAAAAGGTTTTCAGTGTGAGTCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT  
TATTTTTTCAGTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT  
CAGACTCAGGGGAAAAATACAAGTTATATCCTGAAAGCCTTTAAACTCTATGGTAGGATCAAAGATTCAAATGGT  
TTCAGAGAGGTTTTATTTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAATGTAGAAGGTAAAA  
TGTATGCAACACTAATATAAATTATTCCAAGTCTTTAAGGAGCCAAAGAAAAAAGATTTCTCACAGCTTTTTG  
TTCTGTTTTGTATTTCAATTAGGAACCTGCAGTATTATTTTGAAGAACCATTTCTAAATAATAGGAGTTAGGAAAT  
AAATAAAGTTTTGCTAGCCCTGCTAAGTTCAGGCTTAGAGGCTTATCGCTAAGTXTAACTTCACCAGATTCCAC  
GAAAAGCTGGATAGCTTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC  
TGGTAACACCTCGGTTTCAGTGCACCATGTGTTTGCTTTGTGAAGGTGAAGAATATGTTGGTTTAGAGAAAGAAA  
TTGGATGTAATTTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAATAAATGCAA  
AACAACAGCTGGACTGCTGTACATCAAGGACAGATTAAGTGAAGAACATATGTTTCCTTATGTGTGATTGAGAGCC  
ATTGAGAAAAGACTTCCTTTGTGTTTCAGCCTATACTTTTCCATATGGTATACCTTGAAAAAATTAGCACACCAT  
GGTTATTTTTCTACCTTTTATAAAGACAGAGCCTGTTTACTCATTTAGAAAGATAGAGAAAATTGGTCTAAAATT  
GAACATCCTAGATTACACTCCCAAGTCACTTAAGGTGATTTGATGGTGAGGAAAAATGATTGACAAAGCCCAACA  
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGCAGATTTGGTGAATAT  
TTAATATATATTTTAGTATGTATTTCACTTTATGACTGACAATAAAAAATATTGTTTGCCCAATAGTAAACAC  
CCTTTTGAAACCATGAAAAAA

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**FIGURE 1424**

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLLEQMGAASRVGVPEPGQLHFNQCL  
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT  
PLIKKSYFPKILTFVGLAIGTLFSNAIFQLIPEAFGFDPKVD SYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ  
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVVSLQDGKKEPSSCTCLKGPKLSEI  
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGD FVILLNAGMSTRQALLFNFLSACS  
CYVGLAFGILVGNNFAPNIIIFALAGGMFLYISLADMFPENNDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI  
TLYAGEIELE

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**FIGURE 1425A**

GGCCAAAGGTCAAGATACTTCTCTGGGAAATGTTGCTGCTGATGCTGCTTTACAAAGTCATACAATGAGTGTTTG  
GTTTAAGAAAGATTTTCATACTTAAAAGATTTTCATCTTGGAATACATCAAGTGAAAATTAAATTCCTTTTGGGA  
AACATTTTCCTTCTGATATATTATACTTGTAATGGGCGACATGGCAAACAACCTCAGTTGCTTACAGTGGTGTA  
AAACTCTTTGAAGGAAGCTAATCATGATGGAGACTTTGGAATTACGCTCGCAGAGCTGCGGGCTCTCATGGAGCT  
CAGGTCCACAGATGCATTACGAAAAATACAGGAAAAGCTATGGAGATGTCTATGGAATTTGCACCAAATTGAAAAC  
ATCTCCCAATGAAGGTTTAAGTGGAACCCTGCAGATTTAGAAAGAAGAGAAGCAGTGTTTGGAAAAGATTTTAT  
ACCTCCTAAAAAGCCAAAAACCTTTCTTCAATTAGTATGGGAAGCATTACAAGATGTCACCTTTAATTATATTAGA  
AATTGCAGCCATAGTATCATTGGGCCTTTCTTTTATCAGCCTCCAGAAGGGGATAATGCACCTTTGTGGAGAAGT  
TTCTGTTGGGGAGGAAGAAGGTGAAGGTGAACTGGGTGGATTGAAGGAGCTGCAATCCTCTTGTCTGTAGTGTG  
TGTGGTGTAGTAACAGCTTTCAATGACTGGAGTAAGGAGAAACAGTTTAGAGGTTTGAGAGCCGAATTGAACA  
AGAACAGAAGTTCAGTGTATCAGGGGTGGTCAGGTCATTAGATACCTGTAGCTGACATTACTGTTGGAGATAT  
TGCTCAAGTGAAATATGGTGATCTTCTTCCAGCTGACGGCATACTTATTCAAGGCAACGATCTTAAAATTGATGA  
AAGCTCATTGACTGGTGAATCAGATCATGTTAAAAAGTCTTTAGATAAGGATCCCTTACTTCTATCAGGTACTCA  
TGTAAGGGAAGGCTCTGGAAGAATGGTAGTTACAGCTGTAGGTGTAAATTCTCAAACCTGGAATTATCTTTACCTT  
ACTTGGAGCTGGAGGTGAAGAGGAAGAGAAGAAAGATGAGAAGAAAAAGGAAAAGAAAAATAAGAAACAAGATGG  
AGCTATTGAGAATCGCAACAAAGCAAAGCCAGGATGGTGCAGCCATGGAATGCAGCCATTGAAGAGTGAAGA  
AGGTGGAGATGGTGATGAAAAAGATAAAAAAGAAAGCAAATTTGCCAAAAAGGAAAAATCTGTTTTACAAGGGAA  
ACTTACAAAACCTGGCTGTTTCAAGATTGGCAAAGCAGGTCTGTTGATGTCTGCCATCACAGTTATCATTCTAGTATT  
ATATTTTGTCTATTGACACCTTCTGGGTTTCAAGAAAGACCATGGCTTGTCTGAGTGCACACCAATTTATATACAATA  
CTTTGTGAAGTTCTTCAATTATTGGAGTTACAGTTTTAGTGGTGCAGTGCCAGAAGGTCTTCCACTTGCAGTCAC  
GATCTCACTGGCTTATTCACTCAAAAAATGATGAAAAGATAATACTTAGTAAGGCATCTGGATGCTTGTGAAAC  
CATGGGAAATGCTACAGCTATTTGTTTCAAGATAAAAAACAGGAACCTTTGACAATGAACAGAATGACAGTCGTTCAAGC  
TTACATAAATGAAAAACATTATAAAAAAGGTTCTTGAACCAGAAAGCTATTCCACCAAATATTTTGTCTATCTTGT  
AACAGGAATTTCTGTGAATTGTGCTTATACATCAAAAAATATTGCCACCAGAGAAAGAGGGTGGATTACCTCGTCA  
CGTTGGTAATAAAACTGAATGTGCCTTGTGGGACTTCTTTTGGATTTAAACCGGGATTATCAGGATGTTAGAAA  
TGAAATACCAGAAGAAGCACTGTACAAAGTCTACACCTTCAATTCTGTTAGGAAGTCCATGAGTACTGTCCTGAA  
AAATTCAGATGGAAGTTATCGAATATTAGCAAGGGTGCATCTGAGATAATTCTGAAAAAGTGTTTCAAAATCTT  
GAGTGCTAATGGTGAGGCAAAAGTATTAGACCAAGGGACCGTGATGATATTGTAAAAACTGTGATTGAACCGAT  
GGCATCAGAAGGCTTGAGAACCATATGTCTTGCATTAGAGATTTTCCAGCAGGAGAACCAGAACCAGAGTGGGA  
TAATGAAAATGATATTGTACCGGCCTTACATGCATTGCTGTTGTGGGGATTGAAGATCCTGTGAGACCTGAGGT  
GCCAGATGCAATTAAAAAGTGTGAGAGGGCTGGAATTACTGTGCGGATGGTCACTGGTGATAATATTAATACTGC  
TCGGGCCATTGCTACCAAATGTGGTATTTTACATCCTGGGGAAGATTTTCTGTGCCTAGAAGGTAAAGATTTTAA  
CAGAAGATACGAAATGAAAAAGGAGAGATTGAGCAAGAGAGGATAGACAAGATTTGGCCAAAACCTTCGAGTACT  
TGCAAGATCATCTCCTACTGATAAGCATACTGGTTAAAGGTATAATTGACAGCACTGTCTCAGACCAACGCCA  
GGTTGTAGCTGTAACTGGTGATGGTACAAATGATGGCCCAGCACTAAAGAAAGCAGATGTTGGATTGCAATGGG  
TATTGCTGGAACGTATGTAGCTAAAGAAGCATCCGATATTCTCACAGATGACAACCTTTACAAGCATTGTTAA  
AGCAGTTATGTGGGGACGAAATGTCTATGACAGCATCTCAAATTCCTTCAGTTCCAACCTTACTGTTAATGTAGT  
AGCAGTGATTGTTGCTTTTACGGGCGCCTGCATTACTCAAGACTCACCGCTTAAGGCTGTGCAGATGCTGTGGGT  
AAACCTCATAATGGATACACTCGCTTCCCTGGCTCTGGCAACGGAACCACTGAGTCTCTCTTGTCTCGGAA  
ACCTTATGGTAGAAATAAGCCTCTCATCTCACGTACAATGATGAAGAATATTTTGGGTGATGATTCTATCAACT  
TGTAAGTAGTCTTTACACTCTTATTTGCTGGAGAAAAAGTTTTTGGACATTGATAGTGGAAGAAATGCTCCTTTGCA  
TGCTCCTCCTTCAGAACATTATACTATTGTTTTTAATACCTTTGTGCTGATGCAACTTTTCAACGAAATAAATGC  
CCGGAAAAATTCATGGTGAAAGAAATGTATTGGAAGGAATCTTTAACAATGCCATCTTCTGCACAATTGTTTTAGG  
CACTTTTGTGGTACAGATAATAATTGTGCAGTTTGGTGGAAAACCTTTTCAAGTTGTTTCAAGAACTTTCAATAGAACA  
GTGGCTATGGTCAATATTCTAGGAATGGGAACATTACTCTGGGGCCAGCTTATTTCAACAATTCCAACCTAGCCG  
TTTTAAATTCCTCAAAGAAGCTGGTCATGGAACACAAAAGGAAGAAATACCTGAGGAGGAATTAGCAGAGGATGT  
TGAAGAGATTGATCACGCTGAAAGGGAGTTGCGGCGTGCCAAATCTTGTGGTTTAGAGGTCTGAACAGAATCCA  
AACACAGATTCGAGTGGTGAATGCATTTCTAGTTCTTTATATGAAGGGTTAGAAAACCGGAATCAAGAAGTTC



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**FIGURE 1425B**

GATTCACTTTATGACACATCCTGAGTTTAGGATAGAAGATTCAGAGCCTCATATCCCCCTTATTGATGACAC  
TGATGCCGAAGATGATGCTCCTACAAAACGTAACCTCCAGTCCTCCACCCTCTCCCAACAAAAATAACAATGCTGT  
TGACAGTGGAATTCACCTTACAATAGAAATGAACAAGTCTGCTACCTCTTCATCCCCAGGAAGCCCACTACATAG  
TTTGAAACATCACTCTGAATTGTAAGCTGAATGTTAACACACTAGCTGCATTGTAAAGAAACAAATTGAAACTGG  
GTCTTTTCACATATTGTGATGGACAAGCTAGTATTCTTGTCTTTGGACTTCAACAGAAGACACACTTGTACGAAT  
GTAGATTTATTTTTTAAAAAAGCAAAGCTTTCTGCCAGACTGAGGGTGCTTTTGGGGGGTGGGAGAA  
ATGAACTGACAGATAAACAGTAACTCAGCGTAAGTGACCTGTGGATCATCAGTAGTACCAAGCATGGTCCTGAA  
CAGTGTATTAGCAGAGCTTTAGTTTATCTCAGTCCTGGATGGGAGAGAGAGGGAGGAGTAAACTGGGCAAGACA  
AAGAGCCCTGGATCGTTGAATTGATAGTTAATTTCTGCTGTTGGCTGTTAATAATTTGGATTATTTATGTTTAT  
AAATGATACAGATCTGTTTACAAGGTTTGTAGATACTTTTTTTGTTCTGTTTCATAGATGGGAAGCTTCCTTATA  
ACTGATGCAGAGAAAAATTAGTCCTTCAAATACTGCTGTATTTTCAGG

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**FIGURE 1426**

MGDMANNSVAYSGVKNSLKEANHDGDFGITLAELRALMELRSTDALRKIQESYGDVYGICTKLKTS PNEGLSGNP  
ADLERREAVFGKNFIPPKPKTFLLQVWEALQDVTLLIILEIAAIVSLGLSFYQPPEGDNALCGEVS VGEEEGEGE  
TGWIEGAAILLSVVCVVLVTAFNDWSKEKQFRGLQSRIEQEQKFTVIRGGQVIQIPVADITVGDIAQVKYGDLLP  
ADGILIQGNDLKIDESSLTGESDHVKKSLDKDPLLLSGTHVREGSGRMVVTAVGVNSQTGIIFTLLGAGGEEEEK  
KDEKKKEKKNKKQDGA IENRNKAKAQDGAAMEMQPLKSEEGGDGDEKDKKKANLPKKEKSVLQ GKLT KLAVQIGK  
AGLLMSAITVIIILVLYFVIDTFWVQKRPWLAECTPIYIQYFVKFFIIGVTVLVVAVPEGLPLAVTISLAYS VKKM  
MKDNNLVRHLDACETMGNATAICSDKTGTLTMNRMTVVQAYINEKHYKKVPEPEAIPP NILSYLVTGISVNCAYT  
SKILPPEKEGGLPRHVGNKTECALLGLLLDLKRDYQDVRNEIPEEALYKVYTFNSVRKSMSTVLKNSDGSYRIFS  
KGASEIILKKCFKILSANGEAKVFRPRDRDDIVKTVIEPMASEGLRTICLAFRDFPAGEPEPEWDNENDIVTGLT  
CIAVVGIEDPVRPEVPDAIKKCQRAGITVRMVTGDNINTARAIATKCGILHPGEDFLCLEGKDFNRRIRNEKGEI  
EQERIDKIWPKLRLVLARSSPTDKHTLVKGIIDSTVSDQRQVAVTGDGTNDGPALKKADVGFAMGIAGTDVAKEA  
SDIILTDDNFTSIVKAVMWGRNVYDSISKFLQFQLTVNVVAVIVAFTGACITQDSPLKAVQMLWVNLIMDTLASL  
ALATEPPTESLLLRKPYGRNKPLISRTMMKNILGHAFYQLVVVFTLLFAGEKFFDIDSGRNAPLHAPPSEHYTIV  
FNTFVLMQLFNEINARKIHGERNVFEGIFNNAIFCTIVLGTFFVQIIIVQFGGKPFSCSELSIEQWLWSIFLGMG  
TLLWGQLISTIPTSR LKFLKEAGHGTQKEEIP EEELAE DVEEIDHAERELRRGQILWFRGLNRIQTQIRVVNAFR  
SSLYEGLEKPESRSSIHNFMT HPEFRIEDSEPHIPLIDDTDAEDDAPTKRNSSPPPSPNKNNNAVDSGIHLTIEM  
NKSATSSSPGSP LHSLETSL

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**FIGURE 1427**

GGGGGCCCTCCGCAGGTTTCAGTCCTCGCGTCGGCCGCCCCGCGCTCAGTCGCGCGCACCTTCTCTCGCGGCCGGG  
GGACCGCAGCGCGGGGCTAGCCCGGAGACCCGGCCACCGGCCCTGGGGCGCCTTCACGCCGTCTCGGAGCGGATAA  
TGCGGTGAGCAGGCACCACGCCGGCAGACTCGGCTGGATCTGCGCACAGCGGCAGGGATTGCGTGCGCCCGCGGG  
AGCCCCGGGGCAGCGGCTGGGATCCTCAGCGGCGGCCGGTTTGTCTGTTGTGGTCAAGACTGGATGATGTAAC  
TGGCTCTCTAGGAAGCCTCACTTGGCCGTAACCTCAGGAAGGTTCTCTTTGACCCCATCTCATTTTGAAGCCACT  
TCTGAAGCCACTTGAGAAAAATGATGTGACAGTTTCTATCAAAAAGGATTTCAGAAACATATACCATCTGTGAAGA  
AAGTGGCCCTTTCTCCCGCTTGCAAAATAGACATTCTCAAATTCCAAAATGCCAGCCAAGACCCCAATTTACCTG  
AAAGCAGCCAATAACAAGAAAGGAAAGAAATTTAAACTGAGGGACATTCTGTCTCTCTGATATGATCAGTCCCCCG  
CTTGGAGACTTTTCGCCACACCATCCACATTGGCAAAGAGGGCCAGCACGATGTCTTTGGAGATATTTCTTTCTT  
CAAGGGAACTACGAGCTTTTACCTGGAAACCAGGAGAAAGCACACCTGGGCCAGTTCCTTGGGCATAATGAGTTC  
TTCCGGGCCAACAGCACCTCGGACTCTGTGTTTACAGAAACGCCCTCCCCGGTGCTCAAAAATGCCATCTCCCTC  
CCGACCATTGGAGGATCCCAAGCTCTCATGTTGCCCTTATTGTCACCAAGTACATTTAATTCCAAACAGGAGTCC  
TTCGGGCCAGCAAAGCTGCCAGGCTTAGCTGCGAGCCCGTCATGGAGGAAAAAGCTCAGGAGAAAAAGCAGTCTG  
TTGGAGAATGGGACAGTCCACCAGGGAGACACCTCGTGGGGCTCCAGCGGTTCTGCATCTCAGTCCAGCCAAGGC  
AGAGACAGCCACTCTCCAGCCTGTCCGAACAGTACCCCGACTGGCCAGCCGAGGACATGTTTGACCATCCCACC  
CCATGCGAGCTCATCAAGGGAAAGACTAAGTCAGAGGAGTCCCTCTCTGACCTTACAGGTTCCCTCCTCTCCCTG  
CAGCTTGATCTTGGGCCCTCACTTTTGGATGAGGTGCTGAATGTAATGGATAAAAAATAAGTAAACAAGATGCCAAC  
TTTTTTCTTTTGGGGTAAAAGGTACAAAAACAACTAACCACAGTTGAAGAGAAGGGCTTCCGGAGCTGTATTTG  
CAGTTTTGTGTTGGGTTTTCTAAAATAATATTCTTACAAAGTATTTTTTTTACCTGTTATGCCCTGTTTGCAAAAA  
CAATTTAGAAAAAAACAACAAAGCAAAACCTATCTTGGCAAAAAAGGAAGTGAGTCAGAGCCCATTTTCAGGAG  
GCATTGGTGATGTTTCGGCTCACATATTGTTTGCAGACACACAAGAAATCTGGCTTGGCCAGGATTGGCACTAGCT  
ATGAAGGGCTGAGCGAGTCACATTAAGGAACCTTCACGGAACCTTTATAGCACTCCGACATTTTCTGAGCAAGAGGA  
AGTCAAAATTTATTTAACACCTAAGCCTTTTTGTAGACTCTTTTCTATATATTGCTTAGGCTCACCATAGTGAAT  
TCTCCAGTGTTAAACTTTTCTGTTTTTACATTTGAACTTTATGGGTTTTGGGGATTTTCTTGTAGTTCTTATAT  
ATCCCTATATATTATATCTATATTGCAAAATTTTACTGTCTAGCTACATGTTGGTAAGACACAGGCAAAAGTATTA  
CTGTAAGTAAAGTTATTTTTTAAAGTTAAATATATTTTTTACGTGCCTTTGGCTTTTTTATTGCAGAGTCTACATTTT  
ATAGATTCTACATCAGATGTTGTCACTTATTTCCATTGGGATTCCATTGTAAGCTGTGTATGTGCGTGTTTGGAA  
AAGTGTATTCTAATCTTAGTTTTTTTTTCTTCATCTGTTATCATACTTTTAAACAGCAACCAATAACGGATTGTAAA  
GTGTAAAGGCACAGGTTACTCATGATGCTTCTGCAGAGACTGTGGGCTACACCACATATGTTATTTGGAAATATA  
GGTATTTTAGTACAGTACATACTTGCATTACATAGGTACTTCAAGCAACACAATAAAAAGTAAATGATAAAGTGA  
ACTTGCTTGTTTATAGTAATAAACAAGACCATAAGAGAATAAGTATAGCTAGAGAAATTGCTTCTCTGAAATGTA  
CATGAGCCCTTAAGGTAAGAGATGATTTCCATCTACTCTCATTTTGTATTACTTCTTATGGTTTGAGAGGCTAGA  
AACTGAGCCTCTCTACTTTTGGAAAAATGAACATGTGAGGTCAGATTTTTTTTTTTTTTTAAGTCAGCACTGATG  
CCACCTCTCAGTGGTCATTTCTGAGCATCTTCTGACTTGAACACCTTCTACAGCAAACTCTTGCAAGTCCAGT  
TTCATCCCTGTAAGGCAAATGTCTTTTACGCAGAAAGTGCCATATAGACGAGATAAAGGCAGCTAAAACGAGGG  
CAGTAGAGAGCACTTACCCGACCCCAAGGTGCCAGAGATGCCCTGAGGATGGTGGTTAAGGAAACAGGAGCAGGA  
AATGTACACACAGATTCTGTCCCTTTGCCAACTACTCCTTCCCCATCAAAGAAAAACACTTGCACACAGTAACT  
ACCAGCTCCTTCTCTCAAACCTTGATTTCTCCTGGAAATGTATCTCAGAAATGACCTCCTCTCCCAACCACTTCA  
ACGATTCTTTCTTTGGGTTTGGGGTTCTTGCAGTTCTATCATCTAAAATAACCTTTGGACTGCAGGTAAAAATGCA  
ATTAGGACAACCTAACCAAGTAGACGAAACAAGTTCCCCTAGGCAGGGGTGTCCAATATTTTAGCTTCCCTGGACC  
GCATTGGAAGAATTTCTTGGGCCACATGTAAAACACACTAACCTAACCATAGTTGATGAGCTTAAAAAAATAA  
AAATAGAAAATTGC

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**FIGURE 1428**

MISPPLGDFRHTIIGKEGQHDVFGDISFLQGNIELLPGNQEKAHLGQFPGHNEFFRANSTSDSVFTETPSPVLK  
NAISLPTIGGSQALMLPLLSPVTFNSKQESFGPAKLPRLSCEPVMEKAQEKSSLENGTVHQDTSWGSSGSAS  
QSSQGRDSHSSSLSEQYPDWPAEDMFDHPTPCELIKGKTKSEESLSDLTGSLLSLQLDLGPSLLDEVILNVMDKNK

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**FIGURE 1429**

GGCGCCCAAGCCGCCGCCGCGCCAGATCGGTGCCGATTCCCTGCCCTGCCCCGACCGCCAGCGCGACCATGTCCCATC  
ACTGGGGGTACGGCAAACACAACGGACCTGAGCACTGGCATAAGGACTTCCCCATTGCCAAGGGAGAGCGCCAGT  
CCCCTGTTGACATCGACACTCATAACAGCCAAGTATGACCCTTCCCTGAAGCCCCTGTCTGTTTCCCTATGATCAAG  
CAACTTCCCTGAGGATCCTCAACAATGGTCATGCTTTCAACGTGGAGTTTGTATGACTCTCAGGACAAAAGCAGTGC  
TCAAGGGAGGACCCCTGGATGGCACTTACAGATTGATTTCAGTTTCACTTTCACTGGGGTTCACTTGATGGACAAG  
GTTTCAGAGCATACTGTGGATAAAAAGAAAATATGCTGCAGAACTTCACCTTGGTTCACTGGAACACCAAATATGGGG  
ATTTTGGGAAAGCTGTGCAGCAACCTGATGGACTGGCCGTTCTAGGTATTTTTTTGAAGGTTGGCAGCGCTAAAC  
CGGGCCTTCAGAAAGTTGTTGATGTGCTGGATTCCATTAAAACAAAGGGCAAGAGTGCTGACTTCACTAACTTCG  
ATCCTCGTGGCCTCCTTCCCTGAATCCCTGGATTACTGGACCTACCCAGGCTCACTGACCACCCCTCCTCTTCTGG  
AATGTGTGACCTGGATTGTGCTCAAGGAACCCATCAGCGTCAGCAGCGAGCAGGTGTTGAAATTCGGTAAACTTA  
ACTTCAATGGGGAGGGTGAACCCGAAGAAGTATGATGGTGGACAAGTGGCGCCCAGCTCAGCCACTGAAGAACAGGC  
AAATCAAAGCTTCCTTCAAATTAAGATGGTCCCATAGTCTGTATCCAAATAATGAATCTTCGGGTGTTTCCCTTTA  
GCTAAGCACAGATCTACCTTGGTGATTTGGACCCTGGTTGCTTTGTGTCTAGTTTTCTAGACCCCTCATCTCTTA  
CTTGATAGACTTACTAATAAAATGTGAAGACTAGACCAATTGTCATGCTTGACACAAGTCTGTGGCTGGTTGGT  
GCTTTGTTTATGGTAGTAGTTTTCTGTAAACACAGAATATAGGATAAGAAATAAGAATAAAGTACCTTGACTTTG  
TTCACAGCATGTAGGGTGATGAGCACTCACAATTGTTGACTAAAATGCTGCTTTTAAAACATAGGAAAGTAGAAT  
GGTTGAGTGCAAATCCATAGCACAAAGATAAATTGAGCTAGTTAAGGCAAATCAGGTAAAATAGTCATGATTCTAT  
GTAATGTAAACCAGAAAAAATAAATGTTTCATGATTTCAGATGTTATATTAAAGAAAACTTTAAAAATTATTAT  
ATATTTATAGCAAAGTTATCTTAAATATGAATTCTGTTGTAATTTAATGACTTTTGAATTACAGAGATATAAATG  
AAGTATTATCTGTAAAAATTGTTATAATTAGAGTTGTGATACAGAGTATATTTCCATTCAGACAATATATCATAA  
CTTAATAAATATTGTATTTTAGATATATTCTCTAATAAAATTCAGAATTCT

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**FIGURE 1430**

MSHHWGYGKHNGPEHWHKDFPIAKGERQSPVDIDHTAKYDPSLKPLSVSYDQATSLRILNNGHAFNVEFDDSD  
KAVLKGGPLDGTYRLIQFHFHWGSLDGQGSEHTVDKKKYAAELHLVHWNTKYGDFGKAVQQPDGLAVLGIFLKVG  
SAKPGQLQKVVDVLDSEIKTKGKSADFTNFDPRGLLPESLDYWTYPGSLTTPPILLECVTWIVLKEPISVSSEQVLKF  
RKLNFNGEGEPEELMVDNWRPAQPLKNRQIKASF

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**FIGURE 1431**

AGCGTCGGACTACCGTTGGTTTCCGCAACTTCCTGGATTATCCTCGCCAAGGACTTTGCAATATATTTTTCCGCC  
TTTTCTGGAAGGATTTTCGCTGCTTCCCGAAGTCTTGGACGAGCGCTCTAGCTCTGTGGGAAGGTTTTGGGCTCTC  
TGGCTCGGATTTTGCAATTTCTCCCTGGGGACTGCCGTGGAGCCGCATCCACTGTGGATTATAATTGCAACATGA  
CGCTGGAAGAGCTCGTGGCGTGCGACAACGCGGCGCAGAAGATGCAGACGGTGACCGCCGCGGTGGAGGAGCTTT  
TGGTGGCCGCTCAGCGCCAGGATCGCCTCACAGTGGGGGTGTACGAGTCGGCCAAGTTGATGAATGTGGACCCAG  
ACAGCGTGGTCCTCTGCCTCTTGGCCATTGACGAGGAGGAGGAGGATGACATCGCCCTGCAAATCCACTTCACGC  
TCATCCAGTCCTTCTGCTGTGACAACGACATCAACATCGTGCGGGTGTTCGGGCATGCAGCGCCTGGCGCAGCTCC  
TGGGAGAGCCGCGCCGAGACCCAGGGCACCACCGAGGCCCCGAGACCTGCATTGTCTCCTGGTCACGAACCCTCACA  
CGGACGCCTGGAAGAGCCACGGCTTGGTGGAGGTGGCCAGCTACTGCGAAGAAAGCCGGGGCAACAACCACTGGG  
TCCCCTACATCTCTCTTCAGGAACGCTTGAGGGCCCTTCCCAGCAGCAGAATCTGTTGAGTTGCTGCCACAAACAAA  
AAATACAATAAATATTTGAACCCCTCCCCCCCAGCACAAACCCCCCAAACAACCCAACCCACGAGGACCATCG  
GGGGCAGAGTCGTTGGAGACTGAAGAGGAAGAGGAGGAGGAGAAGGGGAGTGAGCGGTCCGCCCCCAGGGACGCT  
CTCCAGGAGCTGGCGGCCGCCGATCAGATGGAGAAGGGGGGACCCAGGCCAGCAGGAGACAGGACCCCCGAAGCT  
GAGGCCTTGGGATGGAGCAGAAGCCGGAGTGGCGGGGCACGCTGCCGCCTTCCCATCACGGAGGGTCCAGACTG  
TCCACTCGGGGGTGGAGTGAGACTGACTGCAAGCCCCACCCTCCTTGAGACTGGAGCTGGCGTCTGCATACGAGA  
GACTTGGTTGAACCTTGGTTGGTCCTTGTCTGCACCCTCGACAAGACCACACTTTGGGACTTGGGAGCTGGGGCTG  
AAGTTGCTCTGTACCCATGAACTCCCAGTTTGCGAATTATAGAGACAATCTATTTTGTTACTTGCACTTGTTATT  
CGAACCCTGAGAGCGAGATGGGAAGCATAGATATCTATATTTTTTATTCTACTATGAGGGCCTTGTAATAAATT  
TCTAAAGCCTCTGAAAAAAAAAAAAAAAAA

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**FIGURE 1432**

MTLEELVACDNAAQKMOTVTAAVEELLVAAQRQDRLTVGVYESAKLMNVDPDSVVLCLLAIDEEEDDIALQIHF  
TLIQSFCCDNDINIVRVSGMQRLAQLLGEP AETQGTTEARDLHCLLV TNPHTDAWKSHGLVEVAS YCEESRGNNQ  
WVPYISLQER



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**FIGURE 1433**

GCTCTTTCCAACGCTGTAAAAAGGACAGAGGCTGTTCCCTATGGCAGAAGGCAACCACAGAAAAAGCCACTTAA  
GGTGTGGGAATCCCTGGGCAAAGATTTCTCTACTGGTGTTTTGGATAACTTGGTGGAACAAAATGTACTGAACTG  
GAAGGAAGAGGAAAAAAGAAATATTACGATGCTAAAACTGAAGACAAAGTTCGGGTTCATGGCAGACTCTATGCA  
AGAGAAGCAACGTATGGCAGGACAAATGCTTCTTCAAACCTTTTTTAACATAGACCAAATATCCCCCAATAAAAA  
AGGTGATAAATTGGGTTCACAGAGGCAGAAATCACAAATTTATGTTCTGCAATATCCTGCAGCTCATCCGAATATGG  
AGGCTGGACCACCTGAGTCAGGAGAATCTACAGATGCCCTCAAGCTTTGTCCTCATGAAGAATTCCTGAGACTAT  
GTAAAGAAAGAGCTGAAGAGATCTATCCAATAAAGGAGAGAAACAACCGCACACGCCTGGCTCTCATCATATGCA  
ATACAGAGTTTGACCATCTGCCTCCGAGGAATGGAGCTGACTTTGACATCACAGGGATGAAGGAGCTACTTGAGG  
GTCTGGACTATAGTGTAGATGTAGAAGAGAATCTGACAGCCAGGGATATGGAGTCAGCGCTGAGGGCATTGCTA  
CCAGACCAGAGCACAAAGTCCTCTGACAGCACATTCTTGGTACTCATGTCTCATGGCATCCTGGAGGGAATCTGCG  
GAACTGTGCATGATGAGAAAAACCAGATGTGCTGCTTTATGACACCATCTTCCAGATATTCAACAACCGCAACT  
GCCTCAGTCTGAAGGACAAACCAAGGTCATCATTGTCCAGGCCTGCAGAGGTGCAAACCGTGGGGAACTGTGGG  
TCAGAGACTCTCCAGCATCCTTGGAAGTGGCCTCTTCACAGTCATCTGAGAACCTGGAGGAAGATGCTGTTTACA  
AGACCCACGTGGAGAAGGACTTCATTGCTTTCTGCTCTTCAACGCCACACAACGTGTCCTGGAGAGACAGCACAA  
TGGGCTCTATCTTCATCACACAACCTCATCACATGCTTCCAGAAATATTCTTGGTGCTGCCACCTAGAGGAAGTAT  
TTCGGAAGGTACAGCAATCATTGAAACTCCAAGGGCCAAAGCTCAAATGCCACCATAGAACGACTGTCCATGA  
CAAGATATTTCTACCTCTTTCCTGGCAATTGAAAATGGAAGCCACAAGCAGCCCAGCCCTCCTTAATCAACTTCA  
AGGAGCACCTTCATTAGTACAGCTTGCATATTTAACATTTTGTATTTCAATAAAAGTGAAGACAAACG

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**FIGURE 1434**

MEAGPPESGESTDALKLCPHEEFLRLCKERAEETIPIKERNNRTRLALIICNTEFDHLPPRNGADFDITGMKELL  
EGLDYSVDVEENLTARDMESALRAFATRPEHKSSDSTFLVLM SHGILEGICGTVHDEKKPDVLLYDTIFQIFNNR  
NCLSLKDKPKVIIVQACRGANRGELWVRDSPASLEVASSQSENLEEDAVYKTHVEKDFIAFCSSTPHNVSWRDS  
TMGSIFITQLITCFQKYSWCCHLEEVFRKVQQS FETPRAKAQMPTIERLSMTRYFYLFPGN

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**FIGURE 1435**

CACGAGGAAGACGTGGATGGCGGGAATTCTCGCTTCTGGCCTGGGTGAGCTAGAAGGGAGAAGCAAGGACATTGG  
AGTCCCTATCACCGGTTGCCTAGACAACCTTCATGGGAAGGCCCTTGGGAATCTGAGATGGAGCAGGCGAACCCCTT  
TACGTCCAGATGGCGAGTCCAAAGGAGGTGTTTTAGCTCACTTGGAAAAGGCTAGAGACCCAAGTGAGCAGATCCC  
GTAAACAGTCTGAAGAGCTGCAGAGCGTGCAGGCCCAGGAAGGTGCTCTTGGAAACCAAGATTTCATAAACTAAGGC  
GTCTGCGAGATGAGCTGAGGGCTGTGGTGCGGCACCGGCGAGCCAGCGTGAAAGCATGTATTGCCAATGTAGAAC  
CCAACCAAACAGTGGAGATCAATGAGCAAGAAGCATTGGAAGAGAAAATTGGAAAATGTGAAAGCCATTCTGCAGG  
CATATCATTTTACAGGCCTCAGTGGTAAACTGACCAGCCGAGGAGTTTGTGTCTGCATCAGTACTGCTTTTGAGG  
GGAACCTATTGGATTCTTATTTTGTGGACCTTGTGCATACAGAAACCACTCCGGATACATCACCATTTCAGTCCCAG  
TCTTCATTCCCCTGGAAGAGATAGCTGCAAAATATTTACAGACCAACATCCAGCACTTCCTGTTTCAGTCTCTGCG  
AGTACCTGAATGCTTACTCTGGGAGGAAGTACCAGGCAGACCGGCTTCAGAGTGACTTTGCAGCCCTCCTGACTG  
GGCCCTTGCAGAGAAACCCACTGTGTAACCTTGCTGTCACTTACTTACAACTGGATCCAGGGGGTTCAGTCCCTTC  
CGTTCTGTGCTAGATTGCTGTATAAGGACCTCACAGCAACTCTTCCCACTGACGTCACCGTGACATGTCAAGGAG  
TGGAAGTATTATCCACTTCATGGGAGGAGCAACGAGCATCTCATGAACTCTGTTCTGTACGAAGCCCTTGCATC  
AAGTGTTCCTCATTTACAAGAAAAGGAGAAAAGTTGGATATGAGTCTGGTCTCCTTAATAGATTGTTTTTACTG  
CACTGGGAGCACATCAGAGAAATAAATCCCCCTCCCCTGCCAGGTGAAAGGAAATATTGCACTTTCTGTTCTCA  
TGAATAAGGGGACAGGAGTTCCAGAAGAACCTTTCAAGATGATCAGGAACACCAGGACGAGGGCCGTCTCACCTC  
ACTCGGACCACATGGAGACCTCCCTTCAAAATGGGAGCCATGTCTTGCCCCACCAAGCCCTGTCTGAAGTGGAGC  
TTCCCCGCCTGTGCTCCCTCCACAGTCCCGGAAAGCCAGCGGCAAAGGCAGCTTTGTCCAGCTCTGCCACCCCT  
CCTGCTCACAGTGGTCAGGGCCCCCTCAGGGGCAAGGACGGCAGGGATTGGAACGAGGGCTCTGGAAGGACTGTTC  
AGCCCTATGCCTAAGACCCCTATGCTGGGGACACTACAGGCACACAGAGGAATAGCAGGGCCACCCTCAGAGCTC  
ACACATCCACGAACAAATGAAGGCTGAGGAGGTTTCTAAACCTAAAGTCCATGAGTGTGCACTTCAATCCAGGAA  
GGTCGGGACTTCCTTCAGTTTCAAAAAATAAATTCTCCCTTCCGGTTTGGACTGTTAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 1436**

MEQANPLRPDGESKGGVLAHLERLETQVSRSRKQSEELQSVQAQEGALGTKIHKLRRRLRDELRAVVRHRRASVKA  
CIANVEPNQTVEINEQEALEEKLENVKAILQAYHFTGLSGKLTSGVCVCISTAFEGNLLDSYFVDLVIQKPLRI  
HHHSVFPVFIPLEEIAAKYLQTNIQHFLFSLCEYLNAYSGRKYQADRLQSDFAALLTGPLQRNPLCNLLSFTYKLD  
PGGQSFFFCARLLYKDLTATLPTDVTVTTCQGVEVLSTSWEEQRASHETLFTCKPLHQVFASFTRKGEKLDMSLVS

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**FIGURE 1437**

GGGAGCCGCGCGGGAGCAGCGCAGCTACGGCGGGCGGCAGCGGCGGCGCGGTTGCGATTCCGAGCCGTTGAGACGC  
CTCTGCGGCAGCTGGTGGCGCAGGTGGCTTGCGTGGACGCGGGTAGAGGCGACCGGCCAGCAACCGCAGCGTCGG  
CGCCCGCGGCCCCGGCAGCAGGCGCGTCGGGACGCCCCGAGGCATCCTCCCCCGCCCGCGGGCCCCGGTAGCTGGG  
CCCGCGTCCGCGCCCGCATCCCCGCGCCGCCGCATCTCCTCGCCGCTCCCCGGGCTTCGGACCCCCCGGTCTCGC  
CCCCGGAAC**ATG**ACTCGCGATTTCAAACCTGGAGACCTCATCTTCGCCAAGATGAAAGGTTATCCCCATTGGCC  
AGCTCGAGTAGACGAAGTTCCTGATGGAGCTGTAAAGCCACCCACAAACAAACTACCCATTTTCTTTTTTGAAC  
TCATGAGACTGCTTTTTTAGGACCAAAGGATATATTTCTTACTCAGAAAATAAGGAAAAGTATGGCAAACCAAA  
TAAAAGAAAAGGTTTTAATGAAGGTTTATGGGAGATAGATAACAATCCAAAAGTGAAATTTTCAAGTCAACAGGC  
AGCAACTAAACAATCAAATGCATCATCTGATGTTGAAGTTGAAGAAAAGGAAACTAGTGTTCAAAGGAAGATAC  
CGACCATGAAGAAAAAGCCAGCAATGAGGATGTGACTAAAGCAGTTGACATAACTACTCCAAAAGTGCCAGAAG  
GGGGAGAAAGAGAAAGGCAGAAAAACAAGTAGAACTGAGGAGGCAGGAGTAGTGACAACAGCAACAGCATCTGT  
TAATCTAAAAGTGAGTCCTAAAAGAGGACGACCTGCAGCTACAGAAGTCAAGATTCCAAAACCAAGAGGCAGACC  
CAAAATGGTAAAACAGCCCTGTCTTCAGAGAGTGACATCATTACTGAAGAGGACAAAAGTAAGAAAAAGGGGCA  
AGAGGAAAAACAACCTAAAAGCAGCCTAAGAAGGATGAAGAGGGCCAGAAGGAAGAAGATAAGCCAAGAAAAGA  
GCCGGATAAAAAAGAGGGGAAGAAAGAAGTTGAATCAAAAAGGAAAAATTTAGCTAAAACAGGGGTTACTTCAAC  
CTCCGATTCTGAAGAAGAAGGAGATGATCAAGAAGGTGAAAAGAAGAGAAAAGGTGGGAGGAACTTTCAGACTGC  
TCACAGAAGGAATATGCTGAAAGGCCAACATGAGAAAGAAGCAGCAGATCGAAAACGCAAGCAAGAGGAACAAAT  
GGAACTGAGCAGCAGAATAAAGATGAAGGAAAGAAGCCAGAAGTTAAGAAAGTGGAGAAGAAGCGAGAAACATC  
AATGGATTCTCGACTTCAAAGGATACATGCTGAGATTAAAAATTCCTCAAAATTGATAATCTTGATGTGAACAG  
ATGCATTGAGGCCTTGGATGAACTTGCTTCACTTCAGGTCACAATGCAACAAGCTCAGAAACACACAGAGATGAT  
TACTACACTGAAAAAATACGGCGATTCAAAGTTAGTCAGGTAATCATGAAAAGTCTACAATGTTGTATAACAA  
GTTTAAGAACATGTTCTTGGTTGGTGAAGGAGATTCCGTGATCACCCAAGTGCTGAATAAATCTCTTGCTGAACA  
AAGACAGCATGAGGAAGCGAATAAAACCAAAGATCAAGGGGAAGAAAGGGCCAAACAAAAAGCTAGAGAAGGAACA  
AACAGGGTCAAAGACTCTAAATGGAGGATCTGATGCTCAAGATGGTAATCAGCCACAACATAACGGGGAGAGCAA  
TGAAGACAGCAAAGACAACCATGAAGCCAGCACGAAGAAAAAGCCATCCAGTGAAGAGAGAGAGACTGAAATATC  
TCTGAAGGATTCTACACTAGATAACT**TAGG**TTGACATACCTGGAATATAGAGAACACTTGAGAAGTTTGTAATGGT  
TTTCATTTGAAATAGACTGCTGGAAGTTTAAATTTTTATAAGCATAGGTTTGATGTTGAAAACCTTGTTTTGAGGG  
AGAAAAATCCCTTTGTTTTAAAGTAAAGTAAACATTATCGCTAAGTGTAAGTTGTGCAGTATTAACAGCTACATTA  
TACAGTAAATGTGGGATAAAATCCATTTAGAAAATGTTAAACTGCTTTTCCAGACATGGTTGTAGCATATTTCA  
ATTAGTGTGTGTATGTTAATGTGTAATTGATAGTAGAACAAGTTACATTTTTTAAACTGCTACTTGTATAAACC  
TTGCCCTCTTTTCCCAAATACTGTGGGTTTTGTGCATAGTTTTTACAAACCTTGGATTTACCAGACTGTCTTTTCA  
CTGTTTGTGGGTTTTGTAGAAGTTACACATTTTTATGGTAGATAAAATGTTACTTCTATACAAGTACTCACTCCC  
TTTTTATCAAAAGTTAATTTTAACTCTCACAGTCTACATTGTGCTACATTATCCAGCTTCTTTGGAACAATGTGTG  
CTCTGTATGGTTTTTTTTTGGTATGACAACATAAAGCAACTGACATTGAACTGAGAATTCTACAAACTATAAAA  
CATTAAATTTTGAAGGTAATTTAGTTTTGTGGCTGGGCATTCAAGTGAAGTCTTAGGACTTCTTTGCAGACAACCTG  
ACTGGGTATATATAGGAATGAATCTGGCTTTAGGGTTAAATCATTTAAGGTCCTTTTATAGGCAGGCACTAGTAA  
CTAAACTGAAAACCTAAGTAAGTTTATTTTTGAGGAATGTTGTTAAAAATGTCTTTAGGAAGTCACTAAACTTA  
ATTGGAAGAAAAAATCATGATGCTTATACAATAAATATGAATAAATGTTATATAAGGAAACTCACCTATTTGAAA  
TCATGGCTATATTGTTTTTATTTCTAGATTCCAAAATACAAACACTAGTTGTTCCAGCATTGTACTTTGATAA  
GTCTGTACATTGACGTGTATGGACTAAATCCAGGGTAAAAATCAATGTTACAAAATTTAAGGGTATGTTAACTAAA  
GGATAGCATTCTAAGATATTTTGAATATTAGGGTCATTTGGCACTTCTCAGCAAGTAGGATACTTCTCATGTTT  
TTGAAATTATATGAATATGGAAAAAATGGCTTAAGACCAGCGTCTCTGTATGACATTGTGTGGTTGACCCCTCTG  
AGATAACTGTTTTTCTATCTACAGAATTGCATTTTTGCTTTTAAAGAGGTCTTATAATGGAAGTGAAGTACCCGTT  
TTGAGAGAACCTGCATATATACCAGTCATTATCTGTTTGGTCTTTATACAGTTTTAACTTACTTAGATTTATTCT  
AGTTAAGCCATAAGTTCAACGTGTAACTTGTTTTTCATTAAAGAATTTTTCTATCAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 1438**

MTRDFKPGDLIFAKMKGYPHWPARVDEVPDGAVKPPTNKLPIFFFGTHETAFLGPKDIFPYSENKEYGKPNKRK  
GFNEGLWEIDNNPKVKFSSQQAATKQSNASSDVEVEEKETSVSKEDTDHEEKASNEDVTKAVDITTPKAARRGRK  
RKAQKQVETEEAGVTTATASVNLKVSPKRGPAATEVKIPKPRGRPKMVKQPCPSESDIITEEDKSKKKGQEEK  
QPKKQPKKDEEGQKEEDKPRKEPDKKEGKKEVESKRKNLAKTGVTSTSDSEEEGDDQEGEKKRKGGRNFQTAHRR  
NMLKGQHEKEAADRKRKQEEQMETEQQNKDEGKKPEVKKVEKKRETSMD SRLQRIHAEIKNSLKIDNLDVNRCE  
ALDELASLQVTMQQAQKHEMITTLKKIRRFKVSQVIMEKSTMLYNKFKNMFLVGEGDSVITQVLNKS LAEQRQH  
EEANKTKDQGKKGPNNKLEKEQTGSKTLNGGSDAQDGNQPQHNGESNEDSKDNHEASTKKKPSSEERETEISLKD  
STLDN

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**FIGURE 1439**

GGCACGAGGCTGTGCTCCCGGCGCTGACGTGTCTGGGCGGTCTGGCTTCCACTCCTTCAGGCGTCGGCAGCCACTA  
GTCGTGGCGAGAGGGGCGGGGTGGCCGGGGCTGGCGCTCCACTTGGCCCCGCTCCCGGCCCGCCCCGCCGCGC  
GGCCCCCGGATGAGGGTATATATTTCGGAGCGAGCGCGGGACGCCGATGAGTGGCCGCGCGGAAGGAGCTGGAGA  
CGGTCTAGCTGCGGTCTGCGCCGAGAAAGGTTTACAGGTACATACATTACACCCCTATTTCTACAAAGCTTGGCT  
ATTAGAGCATT**ATGA**ACATTAATGACCTCAAACCTCACGTTGTCCAAAGCTGGGCAAGAGCACCTACTACGTTTCT  
GGAATGAGCTTGAAGAAGCCCCAACAGGTAGAACTTTATGCAGAGCTCCAGGCCATGAACTTTGAGGAGCTGAACT  
TCTTTTTCCAAAGGCCATTGAAGGTTTTAAACAGTCTTCTTACCAAAGAATGTGGATGCACGAATGGAACCTG  
TGCTTCGAGAGGTATTAGGCAGTGCTACAAGGGATCAAGATCAGCTCCAGGCCTGGGAAAGTGAAGGACTTTTCC  
AGATTTCTCAGAATAAAGTAGCAGTTCTTCTTCTAGCTGGTGGGCAGGGGACAAGACTCGGCGTTGCATATCCTA  
AGGGGATGTATGATGTTGGTTTGCCATCCCGTAAGACACTTTTTTCAGATTCAAGCAGAGCGTATCCTGAAGCTAC  
AGCAGGTTGCTGAAAAATATTATGGCAACAAATGCATTATTCATGGTATATAATGACCAGTGGCAGAACAATGG  
AATCTACAAAGGAGTTCTTACCAAGCACAAAGTACTTTGGTTTTAAAAAAGAGAATGTAATCTTTTTTTCAGCAAG  
GAATGCTCCCCGCCATGAGTTTTGATGGGAAAATTATTTTGGAAGAGAAGAACAAGTTTCTATGGCTCCAGATG  
GGAATGGTGGTCTTTATCGGGCACTTGACGCCCAGAATATTGTGGAGGATATGGAGCAAAGAGGCATTTGGAGCA  
TTCATGTCTATTGTGTTGACAACATATTAGTAAAAGTGGCAGACCCACGGTTCATTGGATTTTGCAATTCAGAAAG  
GAGCAGACTGTGGAGCAAAGGTGGTAGAGAAAACGAACCCTACAGAACCAGTTGGAGTGGTTTGCCGAGTGGATG  
GAGTTTACCAGGTGGTAGAATATAGTGAGATTTCCCTGGCAACAGCTCAAAAACGAAGCTCAGACGGACGACTGC  
TGTTCAATGCGGGGAACATTGCCAACCATTTCTTCACTGTACCATTTCTGAGAGATGTTGTCAATGTTTATGAAC  
CTCAGTTGCAGCACCATGTGGCTCAAAAGAAGATTCCTTATGTGGATACCCAAGGACAGTTAATTAAGCCAGACA  
AACCCAATGGAATAAAGATGGAAAAATTTGTCTTTGACATCTTCCAGTTTGCAAAGAAGTTTGTGGTATATGAAG  
TATTGCGAGAAGATGAGTTTTCCCCACTAAAGAATGCTGATAGTCAGAATGGGAAAGACAACCCTACTACTGCAA  
GGCATGCTTTGATGTCCCTTCATCATTGCTGGGTCTCAATGCAGGGGGCCATTTTCATAGATGAAAATGGCTCTC  
GCCTTCCAGCAATTCCCCGCTTGAAGGATGCCAATGATGTACCAATCCAATGTGAAATCTCTCTCTTATCTCCT  
ATGCTGGAGAAGGATTAGAAAGTTATGTGGCAGATAAAAGAAATTCATGCACCTCTAATCATCGATGAGAAATGGAG  
TTCATGAGCTGGTGAAAAATGGTATT**TGA**ACCAGATACCAAGTTTTGTTTGCCACGATAGGAATAGCTTTTATTT  
TTGATAGACCAACTGTGAACCTACAAGACGTCTTGACAACTGAAGTTTAAATATCCACAGGGTTTTATTTTGCT  
TGTTGAACTCTTAGAGCTATTGCAAACCTTCCCAAGATCCAGATGACTGAATTTTCAGATAGCATTTTTATGATTCC  
CAACTCATTGAAGGTCTTATTTATATAATTTTTTCCAAGCCAAGGAGACCATTGGCCATCCAGGAAATTTTCGTAC  
AGCTGAAATATAGGCAGGATGTTCAACATCAGTTTACTTGCAGCTGGAAGCATTTGTTTTTGAAGTTGTACATAG  
TAATAATATGTCATTGTACATGTTGAAAGGTTTCTATGGTACTAAAAGTTTGTTTTATTTTATCAAACATTAAGC  
TTTTTTAAGAAAATAATTGGGCAGTGAAATAAATGTATCTTCTTGTCTCTGGAAAAAAAAAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 1440**

MNINDLKLTLISKAGQEHLRFWNELEEAQQVELYAEIQAMNFEELNFFFQKAIEGFNQSSYQKNVDARMEPVPRE  
VLGSATRDQDQLQAWESEGLFQISQNKVAVLLLAGGQGTRLGVAYPKGMYDVGLPSRKTLFQIQAEIRILKLQQVA  
EKYYGNKCIIPWYIMTSGRTMESTKEFFTKHKYFGLKKENVIFFQQGMLPAMSFDGKIILEEKNKVSMAPDGNGG  
LYRALAAQNIVEDMEQIRGIWSIHVYCVDNILEVKVADPRFIGFCIQKGADCGAKVVEKTNPTPEVGVVCRVDGVYQ  
VVEYSEISLATAQKRSSDGRLLFNAGNIANHFFTVPFLRDVVNVYEPQLQHHVAQKKIPYVDTQGQLIKPDKPNG  
IKMEKFVFDIFQFAKKFVVYEVLREDEFSPKLNADSQNGKDNPTTARHALMSLHHCWVLNAGGHFIDENGSRLLPA  
IPRLKDANDVPIQCEISPLISYAGEGLESYVADKEFHAPLIIDENGVELVKNGI



TGTGCTGTCTCTCGAGGAGAAATGGAGCAGGCTGTGGAGCTCTGTGGCGGGTAGGAGACTCATTTTGGGTTTCGGA  
 ACTTACCAAGGGGGTGAGATTTTGTGCTCCCACTTTTCACTTTCTCATCAAACACTGGGTCGATCTCTGTCAAAA  
 ATCAGGTGTTTCTCACCATGCTTTGAGCTTAACTGGACCAGCTGAAAAGAGGCCAAGAGAGTAGCCAGTGAAGGG  
 AGCCCCCTCTGTGGCCAGATGCAAGAGCTGCATGAATGGACAGAGATGGTCCAGGTTTAAATAAGAAGCAAGGGTT  
 AGGTTCCCTTGGGGAAAAAGCCAAGACCATTTCCTGTTAGGAAGGGCATTGGATGGATGATCAACACTCCCTCTTG  
 TCGAAGGTTTTTTGACTAATTTTGTGTTGGGATGCTAAATCCATAGGAAATAAAAGGTCTAGGCAGAAAGTCTCAGGG  
 CAGCGTAAATCAGATGTCAACAAAAAAGTTAATTATGAAGGCCAAAGGAAATACATGTGACTTAATGAACCTCAC  
 ACAAACCTGAAGGTTGAAGTCAGGCTCCGGGGCTTTTTCTGGACTTATCCTCTGTTTTCCCTGTGTACTTTGGGG  
 AAGGATCTTCACCTGTGTCTTAGTATCGATTTTTATGAATCAGTACTGATGGAGTATATGTGTGTTTAAATGGTGA  
 ATATTAACCATAGAAGGGCTGAGTGCTCCTCCCCATCTTGGGACTCATAATCTGTGAAATAAAACAGTCTGGGCC  
 TCCCTGCCCCGGGTAGCATCAGGATAGACAGATGAAGAGAAGAGAAAGTAATGTGTCTTGGGCATCTTCTGTATGC  
 CAGGCACCATGCCAGAGGCTTTAAGTACTTTCATCTTACTTGACTCCTCAGATGGCCCTGTTAGAAGCCTATTTTA  
 TGCAAAAGGAAACTGTAGCTGGGGGTAAGTAACTTGCCAAGGGGTACACAGCTAGAAAAGCGGTGGACCCTAGAT  
 GCAGGCGCAGGGCATTACAGACCCACAGTCCACATTCTTTGAGCCAGTCCATTGAGGGTCTCAGGGAATGTGG  
 CGGGTCCCCCTGGTCTCGCTCCCCCGCAGATCTTGATCTCAGCATGCGCCTACCACATCAGTTGACATTAGCACA  
 GCTTTTCCATTAGGAGAACGAAGTGAACCTCCTGGTAGAACGGATGATGGCTCTGCAGACCGACATTGTGGACTT  
 ACAGAGGAGCCCCATGGGCCGGAAGCAGGGGGGAACGCTGGACGACCTAGAGGAGCAAGCAAGGGAGCTGTACAG  
 GAGACTAAGGGAAAAACCTCGAGACCAGCGAACTGAGGGTGACAGTCAGGAAATGGTACGGCTGCTGCTTCAGGC  
 AATTACAGAGCTTCGAGAAGAAAGTGCGAGTGATCTATACGCAGCTCAGTAAAACGTGTGGTTTGCAAGCAGAAGGC  
 GCTGGAACCTGTTGCCAAGGTGGAAGAGGTGGTGAGCTTAATGAATGAGGATGAGAAGACTGTTGTCCGGCTGCA  
 GGAGAAGCGGCAGAAGGAGCTCTGGAATCTCCTGAAGATTGCTTGTAGCAAGGTCCGTGGTCTGTCTCAGTGGAAG  
 CCCGGATAGCATGAATGCCTCTCGACTTAGCCAGCCTGGGCAGCTGATGTCTCAGCCCTCCACGGCCTCCAACAG  
 CTTACCTGAGCCAGCCAAGAAGAGTGAAGAACTGGTGGCTGAAGCACATAACCTCTGCACCCTGCTAGAAAATGC  
 CATAACAGGACACTGTGAGGGAACAAGACCAGAGTTTACGGCCCTAGACTGGAGCTGGTTACAGACGGAAGAAGA  
 AGAGCACAGCTGCCTGGAGCAGGCCTCATGATGTGGGGGGGACTCGACCCCCCTGACATGGGGCAGCCCATAGCAGG  
 CTTGTGTGCGGTGGGGGGGACTCGACCCCCCTGACATGGGGCTGCCTGGAGCAGGCCGCGTGACGTGGGGCTGCCTGG  
 CCGCGGCTCTCACATGGTGGTTTCTGTCTGCACTGATGGCCCCAGGGGTCTCTGGTATCCAGATGGAGCTCTCGCTT  
 CCTCAGCAGCTGTGACTTTACCCAGGACCCAGGACGCAGCCCTCCGTGGGCACCTGCCGGCGCCTTGTCTGCACA  
 CTGGAGGTCTCTCCATTACAGAGGCCCAGCGCACATCGCTGGCCCCACAAACGTTTCAAGGGGTACAGCCATGGCAGC  
 TCCTTCCTCTGCCGTGAGAAAAGTGCTTGGAGTACGGTTTGCCACACACGTGACTGGACAGTGTCCAATTCAAAT  
 CTTTACAGGGCAGAGTCCGAGCAGCGCTTGGTGACAGCCTGTCTCTCTCTCCAAAGGCCCTGCTCCCTGTC  
 CTCTCTCACTTTACAGCTTGTGTTTTCTTCTGGATTTCAGCTTCTCTCTAAACAGACAGTTTAATTATAGTTGCGGCC  
 TGGCCCCATCCTCACTTCCTCTTTTTATTTCACTGCTGCTAAAATTGTGTTTTTACCTACTACTTTTGGTGGTTGT  
 CCTCTTTTTCGGCAAAGTTGGAGCGAGTGCCAAGCTCTCCATCTGTGGTCTTTTCTGCCAAGAGCGACTCATAGTA  
 ACCAGGATGGGAGAGCAGCTGCCTTATTCTGAATCCCCAAAATTACTTGGGGGTGATTGTCTACAGAGGAGGGACA  
 GAAAGGGTATCTGCTGACCACCAGCCTGCCTACCCATGCCATGTCTCCATTCTGCTCAAGCGTGTGTGCTGGG  
 CCGGGGAGTCCCTGTCTCTCACAGCATCTAGCAGTATTATTAATGGATTCATTTTAAAAATAGCTCCTATATTT  
 TGTAACATGTCTCAAACACTCATACTGGGTTCACAATCCACTGTTAGAATACCTATGGTTAGGGCTTCTGAACT  
 AAAATAATGGAAAATTTTAAACAATTTGTATAGTGCCTGGATCATTACTAGTGCCATAACCTGCTTCTTCAACAT  
 TTCACAGAACTTCTCTTTTTATATAAAGGCAAGAGCACAAAATGAGTTCAGATGATCAGAAACAGGTGAGTTTTGT  
 TGGAGAAGAAAGTTGGAGTAGGAGACTTTTACAAGTGGTTTCCATGGAGATAGAATGAAGCATTCTGTGGTCAAG  
 TAAGTTTAGGGAGCTATTATGTTTTCACTTGCTTTGTGGAGATTACACTATGCACTGGGAAAAGTATCTGAAAAG  
 TCTTATAATAAAGAAACAGGCTTAACTTTGTGTAAGAACACTGTTTATCAATGTCAATTTGGCTATAGAAACATTT  
 TCTCTGTCTGATTGTGTGTGTGAAACATGTATTAACATTCCAATGAACTAGCATTTAATAAAGCACAAATTTTGGGA  
 AACCTTGGTAAATGACAGTGGGAAATAACACCCGAAAGGCAAGGACGGGCAGATTGGGGAGGGAAAGGATGTTGG  
 GCTAAGGGCTGTGAGCTTATGTTACAGGCAACTGAGCCACTGAAGAATTTTGACGAAGAAAAATGCCAACCAAGC  
 AGTCATTTTTAAAGTTTTATGGCTGTTTCACTTACAGGACAAGTTGTGAAAAGAAAGAAAAAAAATGG

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**FIGURE 1442**

MMALQTDIVDLQRSPMGRKQGGTLDDEEQARELYRRLREKPRDQRTEGDSQEMVRLLLQAIQSFEKKVRVIYTQ  
LSKTVVCKQKALELLPKVEEVVSLMNEDEKTVVRLQEKROKELWNLLKIACSKVRGPVSGSPDSMNASRLSQPGQ  
LMSQFSTASNSLPEPAKKSEELVAEAHNLCTLLENAIQDTVREQDQSFTALDWSWLQTEEEEHSCLEQAS

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**FIGURE 1443**

GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCGCTCCGCGCC**ATG**GCCGGCCTCAACTCCCTGGAGG  
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG  
AGCTGGACGGCGAGCGCGAGCGGGCGGAGAAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG  
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG  
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTGAGG  
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG  
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG  
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA  
AATATGAAGAAGAAATTAACTTCTGTCTGCAAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA  
CGGTTGCAAACTGGAAAAGACAATTGATGACCTGGAAGAGAAACTTGCCAGGCCAAAGAAGAGAACGTGGGCT  
TACATCAGACACTGGATCAGACACTAAACGAACTTAAGTGTATAT**TAAG**CAAAACAGAAGAGTCTTGTTCCAACAG  
AAACTCTGGAGCTCCGTGGGTCTTTCTCTCTCTGTAAGAAGTTCCTTTTGTTATTGCCATCTTCGCTTTGCTG  
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGTATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA  
TTCCTTCCCTTTTTTTTTTCAAATGGCACCAGCTTTTTTCAGCTCTCTTATTTTTTCTTAAGTAGCATTTATTCCT  
AAGGTAGGCAGGGTATTTCTTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCTGGGAGAATAGGCAG  
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAAAACGCTGAAGACCATAACCTTTT  
GGGTCAACTGTTGGTCAAACATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT  
AAAAGGACTGGTGGGGGCCGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG  
GCCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA  
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATTGATCCTTGATGTGATGTTCTTTTGCATATTTCTT  
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGTCTTCGCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA  
TCACTTGAGGTGAGGAGTTCGAGACCAGCCCAGCCAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAATT  
ATGGTGACGCCTGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG  
ACTGCAGTGAGCCGATATCGCACACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAAATA  
AAAAATAAAGTTGTTCTCTGAAGAGCAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC  
AGTCCAATTCAGGTGAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA  
GCAGAAAGGGCCTCTCTGGCAGCAGAGATTAAAAACTGGCCCAACTTCATTTCCATACTTCAGGGAACAGCAAAT  
TGAGGATTTACTTATCTAGGACTT

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**FIGURE 1444**

MAGLNSLEAVKRKIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ  
KLEEAekaADESERGMKVIENTRAMKDEEKMEIQEMQLKEAKHIAEEADRKYE EVARKLVILEGELERAEERA EVS  
ELKCGDLEEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA  
QAKEENVGLHQTLTDLNLNLCI

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**FIGURE 1445A**

CGGCCGCGAGCGCAGTGGTGTGGAGCGCGCCGGGTCCCGGAGCCGGCTGTCTGAGGG**ATGG**ACGAGACGAGCCCA  
CTAGTGTCCCCGAGCGGGCCCAACCCCGGACTACACCTTCCCGTCGGGCTCGGGCGCTCACTTTCCGCAGGTG  
CCCGGGGGCGCGGTCCGAGTGGCGGGCGGCGGCCGGCTCGGGCCCCCTCTCCGCCAGGCTCGCCGGGCCACGACCGC  
GAGCGGCAGCCACTGTTGGATCGGGCCCCGGGCGCGGCGGCCAGGGCCAGACCCAAACCGTGCGGGCGCAGGGCC  
CAGGCTCTGGCCGCTCAGGCCGCGGCGGCAGCCCACGCCGCTCAGGCCACCGCGAGCGGAACGAGTTCCCGGAG  
GATCCTGAGTTCGAGGCGGTGGTGCGGCAGGCCGAGCTGGCCATCGAGCGCTGCATCTTTCCCGAGCGCATCTAC  
CAGGGCTCCAGCGGAAGCTACTTCGTCAAGGACCCCTCAGGGGAGGATCATTGCTGTCTTCAAACCCAAGAATGAA  
GAGCCCTATGGGCATCTTAATCCTAAGTGGACCAAGTGGCTGCAGAAGCTGTGCTGTCTTGGCCGT  
GACTGCCTTGTCCTTAACCAGGGCTATCTCTCAGAAGCAGGGGCCAGCCTGGTGGACCAAAAACCTGGAACCTAAC  
ATTGTTCCCGTACAAAGGTAGTATACCTGGCCAGTGAGACCTTCAACTATAGTGCCATTGACCGAGTGAAGTCC  
AGGGGCAAGCGGCTTGCACTAGAGAAAGTGCCAAAAGTTGGACAGCGGTTTAACCGCATCGGGCTACCACCAAAG  
GTTGGTTCATTCCAGCTCTTTGTTGAAGGCTACAAAGATGCAGACTATTGGCTGCGGCGTTTTGAAGCAGAACCT  
CTTCTGAGAACATAACCGGCAACTACTGCTCCAGTTTGAGCGGTTGGTGGTGTGCTGGATTACATCATCCGCAAC  
ACTGATCGAGGCAATGACAACCTGGCTGATTAAATATGACTGTCCAATGGATAGTTCTAGCTCTCGGGACACAGAC  
TGGGTGGTGGTGAAGGAGCCTGTTATCAAGGTGGCTGCCATAGACAATGGGCTGGCCTTCCCACTGAAGCATCCT  
GACTCCTGGAGGGCATATCCTTTTTACTGGGCTGGTTGCCCCAGGCGAAAGTCCCATTTTCTCAGGAGATCAAA  
GATCTGATCCTTCCAAAGATATCGGACCCTAACCTCGTCAAGGACTTGGAAGAGGACCTATATGAACTCTTCAAG  
AAAGATCCTGGTTTCGACAGGGGCCAGTTCATAAGCAGATTGCTGTATGCGGGGCCAGATCTTAAATCTGACC  
CAGGCCTTGAAAGACAACAAGAGTCCCCTGCACCTCGTCCAGATGCCACCTGTGATTGTGAGACGGCCCCGTTCC  
CACCAGCGGTCTTCTAGCGAGTCCTACACACAGAGCTTTCAGAGCCGGAAGCCCTTCTTTTCATGGTGGT**AGCTC**  
CAGAGGCAGGCAGAGGAAATATTGTAGAGACTGGTGGGAGGAAGCCTGGGGAGTGGGGTGCAGGAAAAGCCAGA  
GAAGCCGGTGGAGAGCAGCACCTTTAAGAGCCCTCTCTCTGCTTGCCACCCTGCTCAGAGCTTTCCACCCACA  
GGGAGAAGCACAAATCAGGAACAGTGAGTGCTCCTCGCCCTTCTGATGTGGGGAGGCTGGAGCTCCATGCACGTA  
GTCCAGATGCCTGGGAAGGAACATCTCCCTTCCAGCATCTGCTGGTAGCAGGCTGGGACAGTCCCTTCCCTTCCCT  
GAAAACCTGCTCTATTGCAATTCCCTATTATATTCTGCATCAGAAAAACAAACAAAAACAAAAACAACTTTAAATG  
CTTGTAGCAGAACCCCGGTTCATCTCATGTGAGAAACCTTTAATCCAGGCCTAAATTTGCATAGACCTGACATTC  
AGCTGCCTTGACAGTTGCTTCTCCATGAGCCAAGGTGGTGTGAGAGGGCAACTGGATGACTCGCAGTACCACAG  
CACTGGGACAGACAGAAGCCACACCTTTCTTTTGGGTTTTTGCCAAGCCTCCTCCATCTCCCATCAGTGCTGTGG  
GCTGGCTGCAAGCCTCGAAACAGTTCTCCTGGAAGGGAGGTTTTTGCTTTACCCCGCCAGCACTTCCGCACACA  
ATCATAGAGAACCTCTCTGCTCTCTGCTGGCCTACAGCTTGCTGTGTTTCTCAAGCAGAGGCAGGAAGAGCTAGTC  
TTAGCATTATATTTTAAATAGGAAGTTGACTCCAGCATGTAAAAGTGATCCACGCAGCCGGAGTGATGCCGGG  
AGCTAAGTGGTCTATGGGTGAACATATCCACCTTGCTTCTGAGTCCCTGGTCCCAATCTTCTCATTTGTTCCT  
CTCGTTTTAAATTTTTTCCCCCACTCTTTTGATGTAAGAGTTTCAGTTTGTCTTCGGGAGTGGGTCTCTGCAAG  
GGCTCTGGGATGAGTCTTGGCTTCCAAGAGGACAGGCTATTAGGTTCTTGGACTTTTTTCTGTGCTACCGCTGCT  
GCTTGGTGGAAAGTAACAGGACGTGGATTCTGCCTCATAAGTGGCAGTTTCCCTTTTCTCTGACTTGTCTTAGG  
CCGATTTCTCTATGGCTTCCCTGAGAAAGGTGAGGCCCAAAGGAGAGAGGCCTTCAAACGTGTCACAGGTCTGCG  
CAGCTCAGTGCGTATCTTCTTGCTTCCATGTGTCTTTCCCTGCTGCCTCACTCCCCACCCCACTTGCCAGGT  
GTTTGAGCCATTTCTACACCAAAGCAAAGTACGGCCTCAGGAGGGAGTAAAAAGGTGCCATCTGTGTCTGGAGG  
GGCAGCTGTGTTTCATGCCCTGTGCTACTGGACATTTCACAATTCTGGCACCTTGCGATTGGTCAGTCAACCTCAG  
AAAGTAACTATCTTGAAGGTTTGAACAAACAAAGAAAGGGAGTGAGGACTATGGCTGCATGTCTCTGCTTG  
CCCGGCTGCAGAGCAGAGATGTGCAGCCCTCTGGTCAGCTGGTCCAGGCTGGTCCCCGCGGTCCCCCTCCAGTC  
CAGCCACCAAGAGTCCACTTGTCCCGGGCTTCCACCTGGCTGACAGGAAGAATTTCTGAGAGCTGGATGTGCATG  
CCCTGTGGACGAAGGTACAGCTCGCCTGCCTGCCCAATCCAGCCCCGACAATCACATGCAGCTGACTCGGACA  
CTGGCCTTGGGAACAATGTTTCAGAGAACACTTGCCCCCTTGACTGTAGGAGCCAGAAGGGGACCCAGGTGTGCAT  
AGCTCTCTGTAGACATTTTTACCCAAACCTGTTGGTAAAGTGCCCCATCTGGTGCTCAAGAGAGCCTGGGGGTCTA  
ACAGGGAGCCCCGGTGCCTCACCTGGCCACAGCCTCCACACCAGATCTCCACATTGTCTTGATCCAGACCAGCTC  
TGTGATCAGAAGGAAATTGGGTCCAGTGTAGGAGAGAGCTGGTCCCTGGGCCTGGCAGGCAAGAGTGTGGGCATCC  
TTTCTGGCCTTTCTCCACTCTCCCTCAAGCCTGTGCTCAGGTTGCCTTGAATGTGGACTCTGGAAGAGCCAGGG

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**FIGURE 1445B**

GCCCAGAATGCCGGGGGAGGCTTCTGAGTGGCACTCATGGAACACCGTCCCTCTGCCAGCCATAGGCCCTGCCTC  
CAGTGT CAGGGAATGGAGGCTGGGCTGCGAGAGTGTTGCTGCCCCCTGTGTCATTCTTCTAATCCAATGTAGAAA  
TTGTACGTAATGTATTTAAATCAACGCAAATGTATGAATAACAAATACAGTTCTGACCTTTTTTGTCCAGTTTCT  
TTGGGGGAAGGAAGACAAAGAAGGTAGGAACGGAATTTTGAGGGCAAAGAAACCTGTGTTTCCATGGAATTGCTG  
AGACGTGGCTCCTGGGGCTATTTCTCCCTAATAAAGGATGATCCAGGTCCTCATTTCCAAAGTCCCAATGCTCTG  
AAAACCAAAGTATTTTCATAACCCATTTGAAACCAAACCTGACCTGAACTTACACTGATAGGAAGCTATGGGTA  
ATTATGATGTGTTTCCTTTTAGTGTGATTCTTTGTTGCAGAAATGTCAATATATTTTATGACATGGTTCCTACTA  
GGGATTATACAGTATTTGCTGACTACTTCCTAAGAGCCAAAAATAAAAAATCTGAATTCC

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**FIGURE 1446**

MDETSPLVSPERAQPPDYTFPSGSGAHFPQVPGGAVRVAAAAGSGPSPPGSPGHDRERQPLLD RARGAAAQGQTQ  
TVAAQAQALAAQAAAAAHAAQAHRENERNEFPEDPEFEAVVRQAELAIERCIFPERIYQGSSGSYFVKDPQGRI IAV  
FKPKNEEPYGHLPKWKWLQKLCCPCCFGRDCLVLNQGYLSEAGASLVDQKLELNIVPRTKVVYLASETFNYS A  
IDRVKSRGKRLALEKVPKVGQRFNRI GLPPKVG SFQLFVEGYKDADYWLRRFEAEPLPENTNRQLLLQFERLVVL  
DYIIRNTDRGNDNWLIK YDCPMDSSSRD TDWVVVKEPVIKVA AIDNGLAFPLKHPDSWRAYPFYWAWLPQAKVP  
FSQEIKDLILPKISDPNFVKDLEEDLYELFKKDPGFDRGQFHKQIAVMRGQILNLTQALKDNKSPLHLVQMPPVI  
VETARSHQRSSSESYTQSFQSRKPFFSWW

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**FIGURE 1447A**

CGGCCGCGAGCGCAGTGGTGTGGAGCGCGCCGGGTCCCGGAGCCGGCTGTCTGAGGG**ATG**GACGAGACGAGCCCCA  
CTAGTGTCCCCCGAGCGGGCCCAACCCCCGGACTACACCTTCCCGTCGGGCTCGGGCGCTCACTTTCCGCAGGTG  
CCCGGGGGCGCGGTCCGAGTGGCGGGCGGCGGGCTCGGGCCCCCTCTCCGCCAGGCTCGCCGGGCCACGACCGC  
GAGCGGCAGCCACTGTTGGATCGGGCCCCGGGGCGCGGCGGGCCAGGGCCAGACCCAAACCGTGGCGGGCGCAGGCC  
CAGGCTCTGGCCGCTCAGGCCGCGGGCGGCAGCCACGCCGCTCAGGCCACC CGCAGCGGAACGAGTTCCCGGAG  
GATCCTGAGTTCGAGGCGGTGGTGCGGCAGGCCGAGCTGGCCATCGAGCGCTGCATCTTTCCCGAGCGCATCTAC  
CAGGGCTCCAGCGGAAGCTACTTCGTCAAGGACCCCTCAGGGGAGGATCATTGCTGTCTTCAAACCCAAGAATGAA  
GAGCCCCATGGGCATCTTAATCCTAAGTGGACCAAGTGGCTGCAGAAGCTGTGCTGTCTTGGCTGCTTTGGCCGT  
GACTGCCTTGTCTTAACCAGGGCTATCTCTCAGAAGCAGGGGCCAGCCTGGTGGACCAAAAACCTGGAACCTAAC  
ATTGTTCCCCGTACAAAGGTAGTATACCTGGCCAGTGAGACCTTCAACTATAGTGCCATTGACCGAGTGAAAGTCC  
AGGGGCAAGCGGCTTGCCTAGAGAAAGTGCCAAAAGTTGGACAGCGGTTTAAACCGCATCGGGCTACCACCAAAG  
GTTGGTTCAATCCAGCTCTTTGTTGAAGGCTACAAAGATGCAGACTATTGGCTGCGGCGTTTTGAAGCAGAACCT  
CTTCCTGAGAACTAACC GGCACTACTGCTCCAGTTTGAGCGGTTGGTGGTGTGCTGGATTACATCATCCGCAAC  
ACTGATCGAGGCAATGACAACCTGGCTGATTAAATATGACTGTCCAATGGATAGTTCTAGCTCTCGGGACACAGAC  
TGGGTGGTGGTGAAGGAGCCTGTTATCAAGGTGGCTGCCATAGACAATGGGCTGGCCTTCCCACTGAAGCATCCT  
GACTCCTGGAGGGCATATCCTTTTTACTGGGCCTGGTTGCCCCAGGCGAAAGTCCCATTTTCTCAGGAGATCAAA  
GATCTGATCCTTCCAAAGATATCGGACCCTAACTTCGTCAAGGACTTGAAGAGGACCTATATGAACTCTTCAAG  
AAAGATCCTGGTTTTCGACAGGGGCCAGTTCCATAAGCAGATTGCTGTCAATGCGGGGCCAGATCTTAAATCTGACC  
CAGGCCTTGAAAGACAACAAGAGTCCCCTGCACCTCGTCCAGATGCCACCTGTGATTGTGAGACGGCCCCGTTCC  
CACCAGCGGTCTTCTAGCGAGTCTACACACAGAGCTTTCAGAGCCGGAAGCCCTTCTTTTCATGGTGGT**TAG**CTC  
CAGAGGCAGGCAGAGGAAATATTGTGAGAGACTGGTGGGAGGAAGCCTGGGGAGTGGGGTGCAGGAAAAAGCCAGA  
GAAGCCGGTGGAGAGCAGCACCTTTAAGAGCCCTCTCTCTGCTTGCCACCCTGCTCAGAGCTTTCCACCCACA  
GGGAGAAGCACAATCAGGAACAGTGAGTGCTCCTCGCCCTTCTGATGTGGGGAGGCTGGAGCTCCATGCACGTA  
GTCCAGATGCCTGGGAAGGAACATCTCCCTTCCAGCATCTGCTGGTAGCAGGCTGGGACAGTCCCTTCCCTTCCCT  
GAAACCCTGCTCTATTGCAATTCCCTATTATATTCTGCATCAGAAAAACAAACAAAAACAAACTTTAAATG  
CTTGTAGCAGAAACCCCGGTTCATCTCATGTGAGAAACCTTTAATCCAGGCCTAAATTTGCATAGACCTGACATTC  
AGCTGCCTTGCAGTTGCTTCCCTCCCATGAGCCAAGGTGGTGTGAGAGGGCAACTGGATGACTCGCAGTACCACAG  
CACTGGGACAGACAGAAGCCACACCTTTCTTTTGGGTTTTTGGCAAGCCTCCTCCATCTCCCATCAGTGCTGTGG  
GCTGGCTGCAAGCCTCGAAACAGTTCTCCTGGAAGGGAGGTTTTTGTCTTTACCCCGCCAGCACTTCCGCACACA  
ATCATAGAGAACCTCTCTGCTCTCTGCTGGCCTACAGCTTGTCTGTTTCTCAAGCAGAGGCAGGAAGAGCTAGTC  
TTAGCATTTATATTTTAAATAGGAAGTTGACTCCCAGCATGTAAAAGTGATCCACGCAGCCGGAGTGATGCCGGG  
AGCTAAGTGGTCTATGGGTGAACATATCCACCTTGCTTCCCTGAGTCCCTGGTCCCAATCTTCTCATTTGTCTCT  
CTCGTTTTAAATTTTTTCCCCCAACTCTTTTGATGTAAGAGTTTCACTTTGTCTTCCGGAGTGGGTCTCTGCAAG  
GGCTCTGGGATGAGTCTTGCTTCCAAGAGGACAGGCTATTAGGTTCTTGACTTTTTTCTGTGCTACCGCTGCT  
GCTTGGTGGAAAGTAACAGGACGTGGATTCTGCCTCATAAGTGGCAGTTTCCCTTTTCTCTGACTTGTCTTAGG  
CCGATTTCTCTATGGCTTCCCTGAGAAAGGTGAGGCCCAAAGGAGAGAGGCCTTCAAACGTCCAGGTCTGCG  
CAGCTCAGTGCGTATCTTCTTGCTTCCATGTGTCTTTTCCCTGCTGCCTCACTCCCCACCCCACTTGCCAGGT  
GTTTGAGCCATTTCTACACCAAAGCAAAGTACGGCCTCAGGAGGGAGTAAAAAGGTGCCATCTGTGTCTGGAGG  
GGCAGCTGTGTTTATGCCCTGTGCTACTGGACATTTACAATTCTGGCACCTTGCGATTGGTCAGTCAACCTCAG  
AAAGTAACTATCTTGAAGGTTTGA AAAACAACCAAAGAAAGGGAGTGAGGACTATGGCTGCATGTCTCTGCTTG  
CCCGGCTGCAGAGCAGAGATGTGCAGCCCTCTGGTCAGCTGGTCCAGGCTGGTCCCCGCGGTCCCCCTTCCAGTC  
CAGCCACCAAGAGTCCACTTGTCCCGGGCTTCCACCTGGCTGACAGGAAGAATTTCTGAGAGCTGGATGTGCATG  
CCCTGTGGACGAAGGTACAGCTCGCCTGCCTGCCCAATCCAGCCCCGACAATCACATGCAGCTGACTCGGACA  
CTGGCCTTGGGAACAATGTTTCAGAGAACACTTGCCCCCTTGACTGTAGGAGCCAGAAGGGGACCCAGGTGTGCAT  
AGCTCTCTGTAGACATTTTACCCAAACCTGTTGGTAAAGTGCCCATCTGGTGCTCAAGAGAGCCTGGGGGTCTA  
ACAGGGAGCCCGGCTGCCTCACCTGGCCACAGCCTCCACACCAGATCTCCACATTGTCTTGATCCAGACCAGCTC  
TGTGATCAGAAGGAAATTTGGGTCCAGTGTAGGAGAGAGCTGGTCTGGGCTGGCAGGCAAGAGTGTGGGCATCC  
TTTCTGGCCTTTCTCCACTCTCCCTCAAGCCTGTGCTCAGGTTGCCTTGAATGTGGACTCTGGAAGAGCCAGGG



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**FIGURE 1447B**

GCCCAGAATGCCGGGGGAGGCTTCTGAGTGGCACTCATGGAACACCGTCCCTCTGCCAGCCATAGGCCCTGCCTC  
CAGTGTTCAGGGAATGGAGGCTGGGCTGCGAGAGTGTTGCTGCCCCCTGTGTCATTCTTCTAATCCAATGTAGAAA  
TTGTACGTAATGTATTTAAATCAACGCAAATGTATGAATAACAAATACAGTTCTGACCTTTTTTGTCCAGTTTCT  
TTGGGGGAAGGAAGACAAAGAAGGTAGGAACGGAATTTTGAGGGCAAAGAAACCTGTGTTTCCATGGAATTGCTG  
AGACGTGGCTCCTGGGGCTATTTCTCCCTAATAAAAGGATGATCCAGGTCCCTCATTTCCAAAGTCCCAATGCTCTG  
AAAACCAAAGTATTTTCATAACCCATTTGAAACCAAACCTGACCTGAACTTACACTGATAGGAAGCTATGGGTA  
ATTATGATGTGTTCCCTTTTAGTGTGATTCTTTGTTGCAGAAATGTCAATATATTTTATGACATGGTTCCTACTA  
GGGATTATACAGTATTTGCTGACTACTTCCTAAGAGCCAAAAATAAAAAATCTGAATTCC

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**FIGURE 1448**

MDETSPLVSPERAQPPDYTFPSGSGAHFPQVPGGAVRVAAAAGSGPSPPGSPGHDRERQPLLDRAARGAAAQGQTQ  
TVAAQAQALAAQAAAAAHAAQAHRENERNEFPEDPEFEAVVRQAELAIERCIFPERIYQGSSGSYFVKDPQGRIIAV  
FKPKNEEPYGHLPKWKWLQKLCCPCCFGRDCLVLNQGYLSEAGASLVDQKLELNIVPRTKVVYLASETFNYS  
IDRVKSRGKRLALEKVPKVGQRFNRIGLPPKVGSFQLFVEGYKDADYWLRRFEAEPLPENTNRQILLQFERLVVL  
DYIIRNTDRGNDNWLKIDCPMDSSSRD TDWVVKEPVIKVAIDNGLAFPLKHPDSWRAYPFYWAWLPQAKVP  
FSQEIKDLILPKISDPNFVKDLEEDLYELFKKDPGFDRGQFHKQIAVMRGQILNLTQALKDNKSPLHLVQMPPVI  
VETARSHQRSSSESYTQSFQSRKPFFSWW

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**FIGURE 1449A**

ATCTTTTTTTCATCTTCTAGCTGTAGCTCGGGCTGCTTGTCTGGCTTGGCTCCCCCTCCCCCTTTGCTCTCTGCCT  
CGTCTTTCCCCAGGACTTTCGCTATTTTGTCTTTTTTAAAAAAGGCAAGAAAGAACTAAACTCCCCCTCCCTCTC  
CTCCAGTCGGGCTGCACCTCTGCCTTGCACTTTGCACAGAGGTAGAGAGCGCGCGAGGGGAGAGAGAGGAAAGAAA  
AAAAATAATAAAGAGAGCCAAGCAGAAGAGGAGGCGAGAAGCATGAAGTGTTAACTCCCCCGTGCCAAGGCCCGC  
GCCGCCCGGACAGACGCCCCGCGCGCTTCCAGCCCCGAGCGGACGCCGCGCGCCGCCCTGCCTGCAGCCCCGGG  
CGGCGACGGCGAGCCCTTCTTATGCAAAGCGCGCCAGCAGCGCGAAGGCGGGACGCCGCGCACCGGGCCGGGCT  
CCTCCAGCTTCGCCGCCGACGCCACCCGCCGCCACCGCAGCTCGCGGAGGATCTTCCCCGAGCCTGAAGCCGCC  
GGCTCGGCGCGCAAGGAGGCGAGCGCAAGGAGGGGCGGGGCGAGCGAGGGAGCACATTGGCGTGAGCAGGGGGG  
AGGGAGGGCGGGCGCGGGGGGCGGGGCGAGGGCGGGGGGTGTGTGTGTGAGCGCGCTTGGAGGTTTCGGGCCAG  
CCACCGCCGCGCAAGCTAGAAGCGCCCCAGCCCGCAAGCTGGCTCACCCGCTGGCCACCCAGCACAGCCCGCTG  
GCCCTCTCCTGCAGCCCATCTGGCGGAGCGGCGGCGGCGGCGGCGGCGGCGGCGAGGAGAATGGCATCAGAACTGGCA  
ATGAGCAACTCCGACCTGCCCACCACTGCCCTGGCCATGGAATATGTTAATGACTTCGATCTGATGAAGTTTGAA  
GTGAAAAAGGAACCGGTGGAGACCGACCGCATCATCAGCCAGTGCGGCCGTCTCATCGCCGGGGGCTCGCTGTCC  
TCCACCCCATGAGCACGCCGTGCAGCTCGGTGCCCTTCCCCAGCTTCTCGGCGCCCAGCCGGGCTCGGGC  
AGCGAGCAGAAGGCGCACCTGGAAGACTACTACTGGATGACCGGCTACCCGCGAGCAGCTGAACCCCGAGGCGCTG  
GGCTTCAGCCCCGAGGACGCGGTGAGGCGCTCATCAGCAACAGCCACCAGCTCCAGGGCGGCTTCGATGGCTAC  
GCGCGCGGGGCGCAGCAGCTGGCCGCGGCGGCGGGGCGGTGCCGCGCCTCCTTGGGCGGCAGCGGCGAGGAG  
ATGGGCCCCGCGGCGCGGTGTGTCCGCGTGATCGCCGCGGCGCGCGCAGAGCGGCGCGGGCCCCGCACTAC  
CACCACCACCACCACGCGCGCGGCCACCACCACCACCCGACGGCGGCGCGCCCGGCGCGGCGGGCAGCGCG  
GCCGCTCGGCGGTGGCGCTGGGGGCGCGGGCGGCGGTGGCCCGGCCAGCGCTGGGGGCGGCGGCGGCGGCGG  
GGCGGCGGAGGCGGCGGGGGCGGCGGGGGCGGGGGCGCCCTGCACCCGCAACCACGCCGCCGGCGGCTGCAC  
TTCGACGACCGCTTCTCCGACGAGCAGCTGGTGACCATGTCTGTGCGCAGCTGAACCGGCAGCTGCGCGGGGTC  
AGCAAGGAGGAGGTGATCCGGCTGAAGCAGAAGAGGCGGACCCCTGAAAAACCGCGGCTATGCCAGTCCTGCCGC  
TTCAAGAGGGTGCAGCAGAGACACGTCTTGAGTCGGAGAAGAACCAGCTGCTGCAGCAAGTCGACCACCTCAAG  
CAGGAGATCTCCAGGCTGGTGCGCAGAGGGACGCGTACAAGGAGAAATACGAGAAGTTGGTGAGCAGCGGCTTC  
CGAGAAAACGGCTCGAGCAGCGACAACCCGTCTCTCCCGAGTTTTTTCATGTAGTCTGACACGCGATTCCAGCT  
AGCCACCCCTGATAAGTGCTCCGCGGGGGTCCGGCTCGGGTGTGGGCTTGCTAGTTCTAGAGCCATGCTCGCCACC  
ACCTCACCACCCCCACCCCCACCGAGTTTGGCCCCCTTGGCCCCCTACACACACACAAACCCGCACGCACACACC  
ACACACACACACACACACACACACACACACACACACCCACACCCCTGCTCGAGTTTGTGGTGGTGGTGGCTGTTTTAACT  
GGGGAGGGAATGGGTGTCTGGCTCATGGATTGCCAATCTGAAATTCTCCATAACTTGCTAGCTTGTTTTTTTTT  
TTTTTTTTACACCCCCCGCCCCACCCCCGGAATTGCACAATGTTCAATGATCTCAGCAGAGTTCTTCATGTGA  
AACGTTGATCACCTTTGAAGCCTGCATCATTACATATTTTTTCTTCTTCTTCCCTTCAGTTCATGAAGTGGTG  
TTCATTTTCTGTGTGTGTGTGTGTGTATTTTGTGTGGATTTTTTTTTTTAATTTTACTTTTAGAGCTTGCTGTG  
CTTGCCACCTCTTTTCCAACCTCCACCCTCACTCCTTCTCAACCATCTCTTCCGAGATGAAAGAAAAAAAAA  
GCAAAGTTTTTTTTTCTTCTCCTGAGTTCTTCAGTGAGATTGAGCTTGCAAAGGAAAAAAAAAATGTGAAATGTTA  
TAGACTTGCAGCGTGCCGAGTTCCATCGGGTTTTTTTTTTAGCATTGTTATGCTAAAATAGAGAAAAAATCCTC  
ATGAACCTTCCACAATCAAGCCTGCATCAACCTTCTGGGTGTGACTTGTGAGTTTTGGCCTTGTGATGCCAAATC  
TGAGAGTTTAGTCTGCCATTAAAAAACTCATTCTCATCTCATGCATTATTATGCTTGCTACTTTGTCTTAGCAA  
CAATGAACTATAACTGTTTCAAAGACTTTATGGAAAAGAGACATTATTAATAAAAAAAAAAAGCCTGCATGCTG  
GACATATATGGTATAATTATTTTTTCTTTTTTTTTTCTTTTGGCTTGGAAATGGACGTTTGAAGACTTATAGCA  
TGGCATTACATACTTTTGTTTTATTGCCTCATGACTTTTTTGAGTTTAGAACAAAACAGTGCAACCGTAGAGCCTT  
CTTCCCATGAAATTTTGCATCTGCTCCAAAACCTGCTTTGAGTTACTCAGAATTCAACCTCCCAATGCACTGAAG  
GCATTCCCTTGTCAAAGATACCAGAATGGGTACACATTTAACCTGGCAAACATTGAAGAACTCTTAATGTTTTCT  
TTTTAATAAGAAATGACGCCCACTTTGGGGACTAAAATTGTGCTATTGCCGAGAAGCAGTCTAAAATTTATTTTTX  
AAAAAGAGAACTGCCCAATTATTTTTGGTTTGTTTTATTTTTATTTTTTGGCTTTTGGTCATTGTCA  
AATGTGGAATGCTCTGGGTTTCTAGTATATAATTTAATTCTAGTGTTTATAATCTGTTAGCCAGTTAAAATGTA  
TGCTACAGATAAAGGAATGTTATAGATAAATTTGAAAGAGTTAGGTCTGTTTAGCTGTAGATTTTTTAAACGATT  
GATGCACTAAATTGTTTACTATTGTGATGTTAAGGGGGTAGAGTTTGCAAGGGGACTGTTTAAAAAAGTAGCT

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**FIGURE 1449B**

TATACAGCATGTGCTTGCAACTTAAATATAAGTTGGGTATGTGTAGTCTTTGCTATAACCACTGACTGTATTGAAA  
ACCAAAGTATTAAGAGGGGAAACGCCCCTGTTTATATCTGTAGGGGTATTTTACATTCAAAAATGTATGTTTTTT  
TTTCTTTTCAAAATTAAAGTATTTGGGACTGAATTGCACTAAGATATAACCTGCAAGCATATAATACAAAAAAAA  
ATTGCAAACTGTTTAGAACGCTAATAAAATTTATGCAGTTATAAAAATGGCATTACTGCACAGTTTTTAAGATGA  
TGCAGATTTTTTTACAGTTGTATTGTGGTGCAGAACTGGATTTTCTGTAACCTAAAAAAAATCCACAGTTTTAAA  
GGCAATAATCAGTAAATGTTATTTTCAGGGACTACATCCTGTCTTTAAAAAGAAATGAAAAGTAAATCTTACCAC  
AATAAATATAAAAAAATCTTGTCAGTTACTTTTCTTTTACATATTTTGCTGTGCAAAATTGTTTTATATCTTGAG  
TTACTAACTAACCACGCGTGTTCCTATGTGCTTTTCTTTCAATTTCTGTTTATATCAAGAAAAGATA  
ATCTACAATAATAACGGCATTTTTTTTTTTGATTCTGTAAAAAAA

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**FIGURE 1450**

MASELAMNSNDLPTSPLAMEYVNDFDLMKFEVKKEPVETDRIISQCGRLIAGGSLSSSTPMSTPCSSVPPSPSFSA  
PSPGSGSEQKAHLEDYYWMTGYPQQLNPEALGFSPEDAVEALISNSHQLQGGFDGYARGAQQQLAAAAAGAGAGASL  
GGSGEEMGPAAAVVSAVIAAAAAQSGAGPHYHHHHHHAAGHHHPTAGAPGAAGSAAASAGGAGGAGGGGPASAG  
GGGGGGGGGGGGAAGAGGALHPHHAAGGLHFDDRFSDEQLVTMSVRELNRLRGVSKEEVIRLKQKRRTLKNRG  
YAQSCRFKRVQQRHVLESEKNQLLQQVDHLKQEISRLVREERDAYKEYEKLVS SGFRENGSSSDNPSSPEFFM

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**FIGURE 1451**

GGCACGAGGGGAAGGTGGCCGAGCGCCGCGCTGCCCACTCGCTCGCTCGCGCACTCAGACGCGCGCCACAACAG  
CGCGCCCCAAGCTGCGCAGCTCTGCAAAAGTTTCTGCTCGGGATCTGGCTCTCTTCCCCTTGGACTTTAGAACGA  
TTTAGGGTTGACAGAGGAAAGCAGAGGCGCGCAGGAGGAGCAGAAAACACCACCTTCTGCAGTTGGAGGCAGGCA  
GCCCCGGCTGCACTCTAGCCGCCGCGCCCGGAGCCGGGGCCGACCCGCCACTATCCGCAGCAGCCTCGGCCAGGA  
GGCGACCCGGGCGCCTGGGTGTGTGGCTGCTGTTGCGGGACGTCTTCGCGGGGCGGGAGGCTCGCGCCGCAGCCA  
GCGCC**ATG**CAAACTACAAGTACGACAAAGCGATCGTCCCGGAGAGCAAGAACGGCGGCAGCCCCGGCGCTCAACA  
ACAACCCGAGGAGGAGCGGCAGCAAGCGGGTGCTGCTCATCTGCCTCGACCTCTTCTGCCTCTTCATGGCGGGCC  
TCCCCTTCCTCATCATCGAGACAAGCACCATCAAGCCTTACCACCGAGGGTTTTACTGCAATGATGAGAGCATCA  
AGTACCCACTGAAAAGTGGTGAGACAATAAATGACGCTGTGCTCTGTGCCGTGGGGATCGTCATTGCCATCCTCG  
CGATCATCACGGGGGAATTCTACCGGATCTATTACCTGAAGAAGTCGCGGTCGACGATTGAGAACCCCTACGTGG  
CAGCACTCTATAAGCAAGTGGGCTGCTTCCTCTTTGGCTGTGCCATCAGCCAGTCTTTACAGACATTGCCAAAG  
TGTCCATAGGGCGCCTGCGTCCTCACTTCTTGAGTGTCTGCAACCCTGATTTGAGCCAGATCAACTGCTCTGAAG  
GCTACATTCAGAACTACAGATGCAGAGGTGATGACAGCAAAGTCCAGGAAGCCAGGAAGTCCTTCTTCTCTGGCC  
ATGCCTCCTTCTCCATGTACACTATGCTGTATTTGGTGCTATACCTGCAGGCCCGCTTCACTTGGCGAGGAGCCC  
GCCTGCTCCGGCCCCCTCCTGCAGTTCACCTTGATCATGATGGCCTTCTACACGGGACTGTCTCGCGTATCAGACC  
ACAAGCACCATCCCAGTGATGTTCTGGCAGGATTTGCTCAAGGAGCCCTGGTGGCCTGCTGCATAGTTTTCTTCG  
TGTCTGACCTCTTCAAGACTAAGATGACGCTCTCCCTGCCTGCCCCTGCTATCCGGAAGGAAATCCTTTCACCTG  
TGGACATTATTGACAGGAACAATCACCACAACATGATG**TAG**GTGCCACCCACCTCCTGAGCTGTTTTTGTAAAT  
GACTGCTGACAGCAAGTTCTTGCTGCTCTCCAATCTCATCAGACAGTAGAATGTAGGGAAAACTTTTGCCCGAC  
TGATTTTTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1452**

MQNYKYDKAIVPESKNGGSPALNNNPRRSGSKRVLLICLDLFCFLMAGLPFLIETSTIKPYHRGFYCNDSEIKY  
PLKTGETINDAVLCAVGIVIAILAIITGEFYRIYYLKKSRSTIQNPYVAALYKQVGCFLFGCAISQSFTDIAKVS  
IGRLRPHFLSVCNPDFSQINCSEGYIQNYRCRGDDSKVQEARKSFFSGHASFSMYTMLYLVLVYLQARFTWRGARL  
LRPLLQFTLIMMAFYTGLSRVSDHKHHPSDVLAGFAQGALVACCIVFFVSDLFKTKMTLSLPAPAIRKEILSPVD  
IIDRNNHHNMM

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**FIGURE 1453**

ACAACCGTAACAGCCACCAGACAAGCTTCAGTGGCCGGCCCTTCACATCCAGACTTGCTGAGAGGACCCACCTC  
TGAGTGTCCAGTGGTCAGTTGCCCCAGGATGGGGACCACAGCCAGAGCAGCCTTGGTCTTGACCTATTGGCTGT  
TGCTTCTGCTGCCTCTGAGGGAGGCTTCACGGCTACAGGACAGAGGCAGCTGAGGCCAGAGCACTTTCAGAAGT  
TGGCTACGCAGCTCCCCCTCCCCACCCCTATCCCGAAGCCTCCCCATGGATCACCCCTGACTCCTCTCAGCATGG  
CCCTCCCTTTGAGGGACAGAGTCAAGTGCAGCCCCCTCCCTCTCAGGAGGCCACCCCTCTCCAACAGGAAAAGCT  
GCTACCTGCCAACTCCCTGCTGAAAAGGAAGTGGGTCCCCCTCTCCCTCAGGAAGCTGTCCCCCTCCAAAAAGA  
GCTGCCCTCTCTCCAGCACCCCAATGAACAGAAGGAAGGAACGCCAGCTCCATTTGGGGACCAGAGCCATCCAGA  
ACCTGAGTCTTGAATGCAGCCCAGCACTGCCAACAGGACCGGTCCCAAGGGGGCTGGGGCCACCGGTGGATGG  
CTTCCCCCTGGGCGGCCTTCTCCAGACAATCTGAACCAAATCTGCCTTCCTAACCGTCAGCATGTGGTATATGG  
TCCCTGGAACCTACCACAGTCCAGCTACTCCCACCTCACTCGCCAGGGTGAGACCCTCAATTTCTGGAGATTGG  
ATATTCCCGCTGCTGCCACTGCCGCAGCCACACAAACCGCCTAGAGTGTGCCAACTTGTGTGGGAGGAAGCAAT  
GAGCCGATTCTGTGAGGCCGAGTTCTCGGTCAAGACCCGACCCCACTGGTGCTGCACGCGGCAGGGGGAGGCTCG  
GTTCTCCTGCTTCCAGGAGGAAGCTCCCCAGCCACACTACCAGCTCCGGGCCTGCCCCAGCCATCAGCCTGATAT  
TTCTCGGGTCTTGAGCTGCCTTTCCCTCCTGGGGTGCCACATTGGACAATATCAAGAACATCTGCCACCTGAG  
GCGCTTCCGCTCTGTGCCACGCAACCTGCCAGCTACTGACCCCTACAAAGGGAGCTGCTGGCACTGATCCAGCT  
GGAGAGGGAGTTCCAGCGCTGCTGCCGCCAGGGGAACAATCACACCTGTACATGGAAGGCCTGGGAGGATACCCT  
TGACAAATACTGTGACCGGGAGTATGCTGTGAAGACCCACCACCACTTGTGTTGCCGCCACCCTCCCAGCCCTAC  
TCGGGATGAGTGCTTTGCCCGTCGGGCTCCTTACCCCAACTATGACCGGGACATCTTGACCATTGACATCAGTCG  
AGTCACCCCCAACCTCATGGGCCACCTCTGTGGAAACCAAAGAGTTCTCACCAAGCATAAACATATTCTGGGCT  
GATCCACAACATGACTGCCCGCTGCTGTGACCTGCCATTTCCAGAACAGGCCTGCTGTGCAGAGGAGGAGAAATT  
AACCTTCATCAATGATCTGTGTGGTCCCCGACGTAACATCTGGCGAGACCCTGCCCTCTGCTGTTACCTGAGTCC  
TGGGGATGAACAGGTCAACTGCTTCAACATCAATTATCTGAGGAACGTGGCTCTAGTGTCTGGAGACACTGAGAA  
CGCCAAGGGCCAGGGGGAGCAGGGCTCAACTGGAGGAACAAATATCAGCTCCACCTCTGAGCCCCAAGGAAGAATG  
AGTCACCCCAGAGCCCTAGAGGGTCAGATGGGGGGAACCCACCCTGCCCCACCCATCTGAACACTCATTACACT  
AAACACCTCTTGATTGGAAAAA



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**FIGURE 1454**

MGTTARAALVLTYLAVASAASEGGFTATGQRQLRPEHFQEVGYAAPPSPPLSRSLPMDHPDSSQHGPFFEGQSQV  
QPPPSQEATPLQQEKLLPAQLPAEKEVGPPLPQEAVPLQKELPSLQHPNEQKEGTPAPFGDQSHPEPESWNAAQH  
CQQDRSQGGWGHRLDGFPPGRPSPDNLNQICLPNRQHVYGPWNLPQSSYSHLTRQGETLNFLEIGYSRCCHCRS  
HTNRLECAKLVWEDTLDKYCDREYAVKTHHHLCCRHPSPTRDECFAARRAPYPNYDRDILTIDISRVTPNLMGHL  
CGNQRVLTCHKHIPGLIHNM TARCCDLFFPEQACCAEEEEKLTFINDL CGPRRNIWRDPALCCYLSPGDEQVNCFN  
INYLRNVALVSGDTENAKGQGEQGSGTGGTNISSTSEPKKE

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**FIGURE 1455**

AGTGGAGTGGGACAGGTATATAAAGGAAGTACAGGGCCTGGGGAAGAGGCCCTGTCTAGGTAGCTGGCACCAGGA  
GCCGTGGGCAAGGGAAGAGGCCACACCCTGCCCTGCTCTGCTGCAGCCAGA**ATG**GGTGTGAAGGCGTCTCAAACA  
GGCTTTGTGGTCCTGGTGTCTGCCAGTGTCTCTGCATACAACTGGTCTGCTACTACACCAGCTGGTCCCAG  
TACCGGGAAGGCGATGGGAGCTGCTTCCCAGATGCCCTTGACCGCTTCCTCTGTACCCACATCATCTACAGCTTT  
GCCAATATAAGCAACGATCACATCGACACCTGGGAGTGGAAATGATGTGACGCTCTACGGCATGTCTAACACACTC  
AAGAACAGGAACCCCAACCTGAAGACTCTCTTGTCTGTCTCGGAGGATGGAACCTTTGGGTCTCAAAGATTTTCCAAG  
ATAGCCTCCAACACCCAGAGTCGCCGGACTTTTCATCAAGTCAGTACCGCCATTTCCTGCGCACCCATGGCTTTGAT  
GGGCTGGACCTTGCTGGCTCTACCCTGGACGGAGAGACAAACAGCATTTTACCACCCTAATCAAGGAAATGAAG  
GCCGAATTTATAAAGGAAGCCCAGCCAGGGAAAAAGCAGCTCCTGCTCAGCGCAGCACTGTCTGCGGGGAAGGTC  
ACCATTGACAGCAGCTATGACATTGCCAAGATATCCCAACACCTGGATTTTCATTAGCATCATGACCTACGATTTT  
CATGGAGCCTGGCGTGGGACCACAGGCCATCACAGTCCCCTGTTCCGAGGTCAGGAGGATGCAAGTCCTGACAGA  
TTCAGCAACACTGACTATGCTGTGGGGTACATGTTGAGGCTGGGGGCTCCTGCCAGTAAGCTGGTGATGGGCATC  
CCCACCTTCGGGAGGAGCTTCACTCTGGCTTCTTCTGAGACTGGTGTGAGAGCCCCAATCTCAGGACCGGGAATT  
CCAGGCCGGTTACCAAGGAGGCAGGGACCCTTGCCCTACTATGAGATCTGTGACTTCCTCCGCGGAGCCACAGTC  
CATAGAACCCTCGGCCAGCAGGTCCCCTATGCCACCAAGGGCAACCAGTGGGTAGGATACGACGACCAGGAAAGC  
GTCAAAAGCAAGGTGCAGTACCTGAAGGATAGGCAGCTGGCAGGCGCCATGGTATGGGCCCTGGACCTGGATGAC  
TTCCAGGGCTCCTTCTGCGGCCAGGATCTGCGCTTCCCTCTCACCAATGCCATCAAGGATGCACTCGCTGCAACG  
**TAG**CCCTCTGTTCTGCACACAGCACGGGGGCCAAGGATGCCCCGTCCCCCTCTGGCTCCAGCTGGCCGGGAGCCT  
GATCACCTGCCCTGCTGAGTCCCAGGCTGAGCCTCAGTCTCCCTCCCTTGGGGCCTATGCAGAGGTCCACAACAC  
ACAGATTTGAGCTCAGCCCTGGTGGGCAGAGAGGTAGGGATGGGGCTGTGGGGATAGTGAGGCATCGCAATGTAA  
GACTCGGGATTAGTACACACTTGTTGATGATTAATGGAAATGTTTACAGATCCCCAAGCCTGGCAAGGGAATTTT  
TTCAACTCCCTGCCCCCTAGCCCTCCTTATCAAAGGACACCATTTTGGCAAGCTCTATCACCAAGGAGCCAAACA  
TCCTACAAGACACAGTGACCATACTAATTATACCCCCTGCAAAGCCAGCTTGAAACCTTCACTTAGGAACGTAAT  
CGTGTCCTTATCCTACTTCCCCTTCCCTAATTCACAGCTGCTCAATAAAGTACAAGAGTTTAAACAGTGTGTTGG  
CGCTTTGCTTTGGTCTATCTTTGAGCGCCCACTAGACCCACTGGACTCACCTCCCCCATCTCTTCTGGGTTCCTT  
CCTCTGAGCCTTGGGACCCCTGAGCTTGCAGAGATGAAGGCCGCCATGTT

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**FIGURE 1456**

MGVKASQTGFVVLVLLQCCSAYKLVCYYTSWSQYREGDGSCFPDALDRFLCTHIIYSFANISNDHIDTWEWNDVT  
LYGMLNTLKNRNP NLKTLLSVGGWNFGSQRF SKIASNTQSRRTFIKSVPPFLRTHGFDGLDLAWLYPGRRDQHF  
TTLIKEMKAEFIKEAQP GKQLLLSAALSAGKVTIDSSYDIAKISQHLD FISIMTYDFHGAWRGTTGHHSP LFRG  
QEDASPD RFSNTDYAVGYMLRLGAPASKLVMGIPTFGRSFTLASSETGVGAPISGPGIPGRFTKEAGTLAYYEIC  
DFLRGATVHRTL GQQVPYATKGNQWVG YDDQESV KSKVQYLKDRQLAGAMVWALDLDDFQGSFCGQDLRFPLTNA  
IKDALAAT

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**FIGURE 1457**

GGCACGAGGGCGGGAGAGACGGAGGTAGAGGGAGGACACAGAGCCGCGCCGCCCGCACCACAGACCTTCGCCTCG  
CCCCGCCGGTTCCTCACCCTCGGGGAGCAACATGGCAGATAATCTCAGTGATACCTTGAAGAAGCTGAAGATAAC  
AGCTGTTGACAAGACTGAGGATAGTTTAGAAGGATGCTTGATTGTCTGCTTCAAGCCCTGGCTCAAAAATAATAC  
GGAAACAAGTGAAAAATCCAAGCAAGTGAATACTTCAGCTGTTTGCAACTCTGTTGACTCCACAGTCTTCCTG  
CAAAGCCAAAGTAGCTAACATCATAGCAGAAGTAGCCAAAAATGAGTTTATGCGAATTCCATGTGTGGATGCTGG  
ATTGATTTACCACCTGGTGCAGCTGCTAAATAGCAAAGACCAGGAAGTGCTGCTTCAAACGGGCAGGGCTCTAGG  
AAACATATGTTACGATAGCCATGAGGGCAGAAGTGCACTTGACCAAGCAGGTGGTGCACAGATTGTAATTGACCA  
TTTAAGGTCACCTGTGCAGTATAACAGATCCCGCCAATGAGAAGCTCTTGACTGTCTTTTGTGGCATGCTGATGAA  
CTATAGCAATGAGAATGATTTCGCTTCAAGCTCAGCTTATCAATATGGGTGTTATTCCTACCTTAGTGAAATTACT  
GGGCATCCACTGCCAAAATGCAGCTCTTACAGAAATGCTGCTTGTGCTTTGGTAATTTAGCAGAACTTGAGTC  
AAGTAAAGAACAGTTTGCCAGTACAAACATTGCTGAAGAGCTAGTAAAACCTCTTCAAGAAACAAATAGAACATGA  
TAAGAGAGAAATGATTTTTGAAGTTCTTGCTCCATTGGCAGAAAATGATGCTATTAAACTACAGCTGGTTGAAGC  
AGGCCTAGTAGAGTGTCTACTAGAGATTGTTTCAGCAAAAAGTGGATAGTGACAAAGAAGATGATATTACTGAGCT  
CAAAACTGGTTTCAGATCTCATGGTTTTATTACTTCTTGAGATGAATCCATGCAGAAGTTATTTGAAGGAGGAAA  
AGGTAGTGTATTTCAAAGGGTACTCTCTTGATCCCATCAAATAACCACCAGCTACAGCTTGCTGGAGCATTGGC  
AATTGCAAATTTTGCCAGAAATGATGCAAATTGTATTCATATGGTAGACAATGGGATTGTAGAAAACTTATGGA  
TTTACTGGACAGACATGTAGAAGATGGAATGTAACAGTACAGCATGCAGCACTAAGTGCCCTCAGAAACCTGGC  
CATTCCAGTTATAATAAAGCAAAGATGTTATCAGCTGGGGTCACAGAGGCAGTTTTGAAATTTCTTAAATCTGA  
AATGCCTCCTGTTTCAGTTCAAACCTCTGGGAACATTAAGAATGTTAATAGATGCACAAGAAGCTGCTGAACAATT  
GGGAAAAGATGTTAAGTTAGTGGAGCGTTTGGTGAATGGTGTGAAGCCAAAGATCATGCTGGTGTGATGGGGGA  
GTCAAAACAGACTGCTGTCTGCCCTTATACGACACAGTAAATCAAAGATGTAATTTAAACCATTTGTGCAGAGTGG  
TGGCATCAAGCATCTAGTTACCATGGCAACTAGTGAACATGTAATAATGCAGAATGAAGCTCTTGTTGCTTTGGC  
ATTAATAGCAGCTTTAGAATTGGGCACTGCTGAGAAAAGATCTAGAAAGTGCTAAACTTGTACAGATTTTACATAG  
ACTGCTAGCAGATGAGAGAAGTGCTCCTGAAATCAAATATAATTCCATGGTCCTGATATGTGCTCTTATGGGATC  
TGAATGTCTACACAAGGAAGTACAGGATTTGGCTTTTCTAGATGTCGTATCCAAACTTCGCAGTCATGAGAACAA  
AAGTGTGCCCAGCAGGCCTCTCTCACAGAGCAGAGACTTACTGTGGAAGCTTGAGAAGCTGCCCCGATACACGGCA  
TCATCCCATCTCTAATTTCCCCTCTGTCTCCATCCAGCGCTTCTTCCGCTTCATTCTCTACCATACCACTTGT  
GCATGCATGTGATGTTCTAATACCAATTGAAGAACCGCTGTAGGTACCTCCCTAATAAGATTTCTAAACCTATAG  
TTAGTGTGATCATGACTTTGTCAAAGGCAAGTCTCCACCCATAACCGTTCTCTTGATTCTGTTGCTTGAGCTA  
CATTAAGTAGAATGTGCATGTTGTAGTCTATGATGATGTAACTTGGTACTACATAATGACTTGCTCCACACAT  
GCAGTAACTACATAATGATGTACTGGTAACTAGAAACAAAGAATGCAGCAGGATCTGTCTAGCTTATTAAAGA  
TGAAACTGAATTGGAAAAATAGCTCCATTTTTTGGTGCTTGGGAAGCACAGTGACCAAAAAAGTTGTATGGCTGC  
TTATTCATTAGTCTTTCCTACTGATGTCAAATCCATGGTACCTAGAGTTAAATAAAATTCCAATGCTCTTACTCT  
TTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1458**

MCLVAFGNLAELESSKEQFASTNIAEELVKLFKKQIEHDKREMIFEVLAPLAENDAIKLQOLVEAGLVECLLEIVQ  
QKVDSKEDDITELKTGSDLMVLLLLGDESMQKLFEGGKGSVFQRVLSWIPSNHQLQLAGALAIANFARNDANC  
IHMVDNGIVEKLMDLLDRHVEDGNVTVQHAALSALRNLAIPVINKAKMLSAGVTEAVLKFLKSEMPVQFKLLGT  
LRMLIDAEAAEQLGKNVKLVERLVEWCEAKDHAGVMGESNRLLSALIRHSSKSKDVIKTIVQSGGIKHLVTMATS  
EHVIMQNEALVALALIAALELGTAEKDLES AKLVQILHRLLADERSAPEIKYNSMVLICALMGSECLHKEVQDLA  
FLDVVSKLRSHENKSVAQQASLTEQRLTVES

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**FIGURE 1459**

GGCACGAGGGCGACCGCTCCCCGGCGGGAGCCAGCGAAGGTTTCCATGTCAGAGGCCGATGGAGAACTGAAGATT  
GCCACCTACGCACAAAGGCCATTGAGACACTTCGTGTAGCTGGAAGACACCAACTTCCTGACAGGAGCTTTATTT  
CATTTGGGATTTCAAGTTTACAG**ATGG**TATCTTCTCAAAAGTTGGAAAAACCTATAGAGATGGGCAGTAGCGAAC  
CCCTTCCCATCGCAGATGGTGACAGGAGGAGGAAGAAGAAGCGGAGGGGCCGGGCCACTGACTCCTTGCCAGGAA  
AGTTTGAAGATATGTACAAGCTGACCTCTGAATTGCTTGGAGAGGGAGCCTATGCCAAAGTTCAAGGTGCCGTGA  
GCCTACAGAATGGCAAAGAGTATGCCGTCAAAATCATCGAGAAACAAGCAGGGCACAGTCGGAGTAGGGTGTTC  
GAGAGGTGGAGACGCTGTATCAGTGTACAGGGAACAAGAACATTTTGGAGCTGATTGAGTTCTTTGAAGATGACA  
CAAGGTTTTACTTGGTCTTTGAGAAATTGCAAGGAGGTTCCATCTTAGCCACATCCAGAAGCAAAGCACTTCA  
ATGAGCGAGAAGCCAGCCGAGTGGTGCGGGACGTTGCTGCTGCCCTTGACTTCCTGCATACCAAAGACAAAGTCT  
CTCTCTGTCACCTAGGCTGGAGTGCTATGGCGCCATCAGGGCTCACTGCAGCCCCAACCTCCCTGGGCTCCAGTG  
ATCCTCCCACCTCAGCCTCCCAAGTAGCTGGGACTACAGGCATTGCTCATCGTGATCTGAAACCAGAAAATATAT  
TGTGTGAATCTCCAGAAAAGGTGTCTCCAGTGAAAATCTGTGACTTTGACTTGGGCAGTGGGATGAACTGAACA  
ACTCCTGTACCCCCATAACCACACCAGAGCTGACCACCCCATGTGGCTCTGCAGAATACATGGCCCCCTGAGGTAG  
TGGAGGTCTTCACGGACCAGGCCACATTCTACGACAAGCGCTGTGACCTGTGGAGCCTGGGCGTGGTCTCTACA  
TCATGCTGAGTGGCTACCCACCTTCGTGGGTCACTGCGGGGCCGACTGTGGCTGGGACCGGGGCGAGGTCTGCA  
GGGTGTGCCAGAACAAGCTGTTTGAAAGCATCCAGGAAGGCAAGTATGAGTTTCTGACAAGGACTGGGCACACA  
TCTCCAGTGAAAGCCAAAGACCTCATCTCCAAGCTCCTGGTGCGAGATGCAAAGCAGAGACTTAGCGCCGCCAAG  
TTCTGCAGCACCCATGGGTGCAGGGGCAAGCTCCAGAAAAGGGACTCCCCACGCCGCAAGTCTCCAGAGGAACA  
GCAGCACAATGGACCTGACGCTCTTCGAGCTGAGGCCATCGCCCTTAACCGCCAGCTATCTCAGCACGAAGAGA  
ACGAACTAGCAGAGGAGCCAGAGGCACTAGCTGATGGCCTCTGCTCCATGAAGCTTTCCCTCCCTGCAAGTCAC  
GCCTGGCCCCGGAGACGGGCCCTGGCCCAGGCAGGCCGTGGTGAAGACAGGAGCCCGCCACAGCACTCT**TGAA**ATG  
CTCCAGTCACACCTTATAGGCCCTAGGCCTGGCCAGGCATTGTCCCCTGGAAACCTGTGTGGCTAAAGTCTGCTG  
AGCAGGCAGCAGCCTCTGCTCTGTGGCTCCATTGAGGCTTTTTCATCTACGAAGGCCCTGAGGTTCCCATCAACC  
CCCATTTCCTTAGGGTCTTGAGGAAAAAGCTTTTTTCCAAAGGGGTTGTCTTTGAAAAGGAAAGCAATCACTTCT  
CACTTTGCATAATTGCCTGCAGCAGGAACATCTCTTCACTGGGCTCCACCTGCTCACCCGCTGCAGATCTGGGA  
TCCAGCCTGCTCTCACCGCTGTAGCTGTGGCGGCTGGGGCTGCAGCCTGCAGGGAGAAGCAAGAAGCATCAGTTG  
ACAGAGGCTGCCGACACGTGCCTCTTCCCTCTCTTCTCTGTACCCCTCCTCTGGCGGTCTTCCACCTCCTCTG  
TCCTCCGGATGTCTCTTTGCCCCTCTTCTCCCTTGGCTGAGCAAAGCCATCCCCTCAATTCAGGGAAGGGCAAG  
GAGCCTTCCTCATTGAGGAAATCAAATCAGTCTTCCGGTCTGCAGCACGGAAGACATAATCTTTCTTTGCTG  
TGACTGAAATGTATCCCTCGTTTATCATCCCCCTTGTGTGATTGCTGCTAAAGTCAGTAGTATCGTTTTTTTA  
AAAAAAAAGTTTGGTGTTTTTAACCATGCTGTTCCAGCAAAGATGATACCTTAAACTCCCAGTCAAGCCCATGA  
ACTTCCCAGAGAGTGGAACGGCTTGCTCTTCTTTCTAGAATGTCCATGCACTTGGGTTTTAATCAGCAGTCCCT  
ATTATTCTGATTTTAAGCTGTTCTGTGATGAACTTAGAGACAGCATCGGTGTCTGCTGCTGTGTCCCCAGGTCT  
TGTGTGGGTGGCACAGATCTGGGCAGTTAGATAGTGCTCTGTGCCTAAGGTGAAGCCACACTAGGGTGAAGCCTC  
ACTTCCCTGTTTGAGCAATGCAGTGCCTGCTGCCCCGTGTGCATGAAGGTACAGCCATTGAGATAAGTGGAACTAT  
TGAGTTACATAAAGAAAATAGATTTGCATTTGTCAGGCAGACGTTTATACAACACCACGGTGCTTTTATACATTG  
TGCTTATTTTAATAAAACTGAAATTCTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1460**

MVSSQKLEKPIEMGSSEPLPIADGDRRRKKKRRGRATDSLPGKFEDMYKLITSELLGEGAYAKVQGAVSLONGKEY  
AVKII EKQAGHSR SRVFRE VETLYQCQGNKNILELIEFFEDDTRFYLVFEKLQGG SILAHIQKQKHFNEREASRV  
VRDVAAALDFLHTKDKVSLCHLGWSAMAPSGLTAAPTSLGSSDPPTSASQVAGTTGIAHRDLKPENILCESPEKV  
SPVKICDFDLGSGMKLNNSCTPITTPELTTPCGSAEYMAPEVVEVFTDQATFYDKRCDLWSLGVVLYIMLSGYPP  
FVGHC GADCGWDRGEVCRVCQNKLFESI QEGKYEFDPKDWAHISSEAKDLISKLLVRDAKQRLSAAQVLQHPWVQ  
GQAPEKGLPTPQVLQRNSSTMDLTLFAAEAIALNRQLSQHEENELAEPEALADGLCSMKLSPPCKSRLARRRAL  
AQAGRGEDRSPPTAL

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**FIGURE 1461A**

TGGAAGAAG**ATG**GCGGAAGGCGGAGCGGCGGATCTGGACACCCAGCGGTCTGACATCGCGACGCTGCTCAAAACC  
TCGCTCCGGAAGGGGACACCTGGTACCTAGTCGATAGTCGCTGGTTCAAACAGTGGAAGAAAAATATGTTGGCTTT  
GACAGTTGGGACAAATACCAGATGGGAGATCAAAATGTGTATCCTGGACCCATTGATAACTCTGGACTTCTCAA  
GATGGTGTATGCCAGTCACTTAAGGAACATCTTATTGATGAATTGGATTACATACTGTTGCCAACTGAAGGTTGG  
AATAAACTTGTCTAGCTGGTACACATTGATGGAAGGTCAAGAGCCAATAGCACGAAAGGTGGTTGAACAGGGTATG  
TTTGTAAGCACTGCAAAGTAGAAGTATATCTCACAGAATTGAAGCTATGTGAAAATGGAACATGAATAATGTT  
GTAACCTCGAAGATTTAGCAAAGCTGACACAATAGATACAATTGAAAAGGAAATAAGAAAAATCTTCAGTATTCCA  
GATGAAAAGGAGACCAGATTGTGGAACAAATACATGAGTAACACATTTGAACCACTGAATAAACCAGACAGCACC  
ATTGAGGATGCTGGTTTATACCAAGGACAGGTATTAGTGATAGAACAGAAAAATGAAGATGGAACATGGCCAAGG  
GGTCTTCTACTCCTAATGTGAAAACTCAAATTACTGTCTTCCATCATATACCGCTTATAAGAACTATGATTAT  
TCGGAACCTGGAAGAAACAATGAACAGCCAGGCCTCTGTGGCCTAAGTAACCTGGGAAATACGTGTTTCATGAAC  
TCAGCTATTGAGTGTGAGCAACACACCTCCACTTACTGAGTATTTCTCAATGATAAGTATCAAGAAGAACTG  
AATTTTGACAATCCCTTAGGAATGAGAGGTGAAATAGCTAAATCTTATGCCGAACCTGATCAAGCAAATGTGGTCT  
GGAAAGTTTAGCTACGTCACCCCAAGAGCCTTTAAGACACAGGTAGGACGTTTTGCACCTCAGTTCTCTGGATAT  
CAGCAGCAAGACTGTCAAGAACTGTTAGCTTTCTTATTAGATGGATTACATGAGGATTTGAATAGAATTAGGAAA  
AAACCATATATACAATTAAGAGATGCAGATGGAAGGCCAGATAAGGTGGTTGCCGAAGAAGCCTGGGAAAACCAT  
TTAAACGAAATGATTCTATCATAGTAGATATATTTTCATGGCCTTTTCAAATCAACTTTAGTTTGTCTGAGTGT  
GCTAAGATTTGAGTAACATTTGATCCTTTTTGTTACTTGACACTTCCATTGCCCATGAAAAAAGAACGCACCTTG  
GAAGTTTACTTAGTTAGAATGGATCCGCTTACCAAACCTATGCAGTACAAAGTGGTTGTCCCCAAAATTGGAAAC  
ATATTAGATCTTTGTACAGCATTGTCTGCTTTGTGTCAGGAATACCTGCAGATAAGATGATAGTTACTGATATATAC  
AATCATAGATTTTACAGAATATTCGCTATGGATGAAAACCTTAGTAGTATTATGGAACGGGATGATATTTATGTG  
TTTGAAATTAACATCAATAGGACAGAAGATACAGAGCACGTGATTATTCCTGTTTGCTTAAGAGAAAAATTCAGA  
CACTCGAGTTATACCCACCATACTGGTTCTTCACTTTTTGGTTCAGCCCTTTCTTATGGCTGTACCACGAAACAAT  
ACTGAAGACAACTTTATAATCTCCTGCTCTTGAGAATGTGCCGATATGTCAAATATCTACTGAAACTGAAGAA  
ACTGAAGGATCCCTACACTGCTGTAAGGACCAAAATATTAATGGGAATGGCCAAATGGCATAACATGAAGAAGGC  
TCACCAAGTGAAATGGAACAGATGAGCCAGATGATGAATCCAGCCAGGATCAAGAACCTCCCTCAGAGAATGAA  
AACAGTCACTCTGAAGATTGAGTTGGAGGAGATAATGATTCTGAAAATGGATTATGTACTGAGGATACTTGCAAA  
GGTCAACTCACGGGACACAAAAACGATTGTTTACATTCCAGTTCAACAACCTTAGGCAATACTGATATCAACTAC  
ATCAAAGATGATACCAGGCATATAAGATTTGATGATAGGCAGCTTAGGCTAGATGAAAGATCTTTCTTGCTTTG  
GATTGGGATCCTGATTTGAAAAAAGATATTTGATGAAAATGCTGCTGAGGACTTTGAAAAACATGAAAGTGTG  
GAGTATAAACCTCCTAAAAAACCTTTGTGAAATTAAGAGATTGCATTGAACCTTTTACAACAAAAGAAAAGCTA  
GGTGCTGAAGATCCCTGGTATTGTCCGAATTGTAAAGAACATCAGCAAGCCACAAAGAAATTGGATTTATGGTCC  
CTGCCTCCAGTACTTGTAGTACATCTCAAGCGATTTTCTTACAGTCGATACATGAGAGACAAGTTGGATACCTTA  
GTTGATTTTCTTATCAATGACTTGGATATGTGCGAATTCTTAATTAATCCAAATGCAGGTCTTGGCGCTATAAT  
CTGATTGCTGTTTCCAACCACTATGGAGGGATGGGAGGAGGACACTATACTGCTTTTGCAAAAAATAAGATGAT  
GGAAAAATGGTACTATTTTATGATGACAGTAGTGTCTCCACTGCATCTGAAGACCAAATTGTGTCCAAAGCAGCATAT  
GTACTCTTCTACCAGAGACAAGACACTTTTCAGTGGAACCTGGCTTTTTTCTCTTGACCGAGAACTAAAGGTGCT  
TCAGCTGCCACTGGCATCCCATAGAAAAGTGATGAAGATAGCAATGATAATGACAATGATATAGAAAATGAAAAC  
TGTATGCACACTAACT**TAA**TGAAAGTCCTAGAAGCCATAAAAGAGACACTTTCTGCTGGTGGTATCTATGGAAAT  
GATGAAGTTACCCACCACATTAACAAACAAAGTCTGAGATGGGGAGTTTCAGATAACCGAATGTAAATCCTTTATC  
AGATTTTAACTTGTGCAGTACTTGAAGTGAAACACAATGAAAACCTTTAACAGAAATTGTCTCTTAATACATTTAC  
AGTCTTGTATTTACAAGCTAAATATATATAGGAAATCACAAATAAATCCCTTTTAAGTTTGTCTGCTGTTTTGATT  
AATTATGTTTCTTTAATTTTTTGGATGTGAGTTGATGACAAATGTTAAATTTGTGGATGTTGGTCATTTATTTT  
GCTCTAATAACTGCAAGAAAACCTATGGCTGAACTTAGTTTTTGGATAATCTAGTTCATGTGCATTAGGCTGCC  
GTATATACTACTATGATATTTAGCTGCAGTATCAATGTGGCATAAATACTGCGGCAGCATTCTTCGAAAACCGCA  
TTTTCAAATTTATCCCGTAATCAATGTGGGCCTATTAAAAAACCAATCATGATACAAGAAACAACCTTGAAA  
AGTTATTTCCCTTTGTAATACCTTTAAAAATCCAGAGTATTATATTCATTTTACTGCCACTGTGGAACAGGTTT  
TAGATTTCTACTCCATCTAAAGTCATTTTTCAGTTACATGTAAGTATTATTTACTGCTATTGGGATCTATTCTT



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**FIGURE 1461B**

CAGATATTCAAAAACATTTTTTGCTTTAAAAATGCATATCTTTAATTGGGTGTTGGTCCAAAATTAAAATTTTTGC  
TGTCTGTTTTTCTCTACCCCATTTTGTGGTAATTTGGCAACTTGAGCTCTCCAATTATTGTAATATAAGGACAG  
ACATAATAGTATTCTGTACCCATAGTAATAATTGCATCAAGCTTAGATGAGAAATTTTTTTCATATACTGGCCTT  
TAAATCATTAAATGGACAATTGGCTATAAAGGTAGGTCTGTAACTTTCTTTGTGTGTTCCCTGATGGAATTCACCA  
TAGCCTTACAGCTTTTCTCAGAAGGTAACTTGTTATAAGAGAAATGGCATTTCATGTTCCAGAGTCAGAACCTG  
TACAGTATATAAAGCATAAACACCTTGAATTTGATTTTAGTTTACCACATTCAAGGATCCAGGATGCCAAAAATA  
TGTGTGAACATTTGAAACATTTTTTATTTGCTGCTTTTCCCTTTGATATAGTTGAAAGAATGTATTGTAAATTGG  
CATACAATACTGCCTTTAATAGAAAACCTAAATGCTGGGGCACATTTACATATCGACTACCTGAGAAATTGCTT  
TGTGTCCCACTGTTATTAAAGCAAAAAGTATAATGTTCTTCACTTGAACATAATCAAATACAATAGATTATAAATT  
GTGTATTGTAAATAAAAGTTCACTCTGTGAGTGCACATTTTGGTAAATTATTTATTTATGTTAGCATTTAAAAGT  
TTAAAAAAAATGCATTTGACCAGGATAAATGAGGTATGTTGATCATGGCTTTGCTTTATATCTTGATATTAAAGC  
TGGTTTATCATCTGGTATTTTAAAAGCTGCTTTGGGGTTTTTTTTTTCTTTTTTTTTTTTTTAAATGTAAACTAA  
CCTCCTGCATGACAGAGGTTAAAATTTGTCTGCACTTGAGTTCACTTGAGTTTACATTTGAAATGTGCATGTTT  
ATTTATATAGATTTCAATAAAGCTATTCAAGGCCTT

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**FIGURE 1462**

MAEGGAADLDTQRSDIATLLKTSLRKGD TWYLVDSRWFKQWKYVGFDSWDKYQMGDQNVYPGPIDNSGLLKDGD  
AQSLKEHLIDELDYILLPTEGWNKLVSWYTLMEGQEP IARKVVEQGMFVKHCKVEVYLTELKLCENGNMNNVVTR  
RFSKADTIDTIEKEIRKIFSIPDEKETRLWNKYMSNTFEPLNKP DSTIQDAGLYQGQVLVIEQKNEDGTWPRGPS  
TPNVKNSNYCLPSYTAYKNYDYSEPGRNNEQPGLCGLSNLGN TCFMNSAIQCLSNTPPLTEYFLNDKYQEELNFD  
NPLGMRGEIAKSYAELIKQMWSGKFSYVTPRAFKTQVGRFAPQFSGYQQQDCQELLAFLLDGLHEDLNRIKKPY  
IQLKDADGRPDKVVAEEAWENHLKRND SIIVDIFHGLFKSTLVCPECAKISVTFDPFCYLTLP LPMKKERTLEVY  
LVRMDPLTKPMQYKVVPKIGNILD LCTALSALSGIPADKMIVTDIYNHRFHRIFAMDENLSSIMERDDIYVFEI  
NINRTEDTEHVIIPVCLREKFRHSSYTHHTGSSSLFGQPF LMAVPRNNTEDKLYNLLLLRMCRYVKISTETEETEG  
SLHCKDQNINGNGPNGIHEEGSPSEMETDEPDDESSQDQELPSE NENSQSEDSVGGDNDSENGLCTEDTCKGQL  
TGHKKRLFTFQFN NLGNTDINYIKDDTRHIRFDDRQLRLDERSFLALDWD PDLKKRYFDENAAEDFEKHESVEYK  
PPKKPFVKLKDCIELFTTKEKLGAEDPWYCPNCKEHQQATKKLDLW SLPVVLVHLKRFSYSRYMRDKLDTLVDF  
PINDLDMSEFLINPNAGPCRYNLI AVSNHYGGMGGGHYTAF AKNKDDGKWYYFDDSSVSTASEDQIVSKAAYVLF  
YQRQDTFSGTGFFPLDRETKGASAATGI PLESDSDNDNDNDIENENCMHTN

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**FIGURE 1463**

CCAGGGCCGGTGTCTCCAGGAGAGGGCCGAGCGCACAGCAGCTCTAGGACCTCGCAGGCGCCTCGGCGCGGCACT  
CACGTAGAGCCCAAGGAGCAGTCCCCGACCTCTCCTCGGAGGGCCGTGCAGGCTTCCCCGGCGGTCCCTACCTGC  
GCCTCCGCCCCGCCAGCGGCGCTGGGGAAGGGGAGGAGCGGCCCGGACGCTGCCCGCCGCGCGCAGGGAGCCGCC  
GCCGCAGGCTTGCCGCCGCCGCCGCCGCGCTCTCCCCGCGAGCCCCGGAGGGCGGGTCTGCGGCCGAGCCAGCGG  
CGGCGGAGGGGAGCGCAGACCTCTGCGGCCCGGGCGGGCGCGGCGCGGGAGTCTGGGCCGCTGGCGGGCAACG  
CCTCTGCCGACCTCGCTGGGGAAGGCTGGCGCTGCTGCCCGGCCGAGCCAGGGGCGAGGCTGCGCAAAGGTGAC  
TTAGGGAGACCTTGCGGGCCGCCCTGGGTGCGCCTCCCGATCGGCTCGCCTCGGCTCGACTGGAGGGGAGGAG  
GAGGAGCAGGCCGAGCGCATTGCGCTGGAGCTTGCAGGAGCGCAGGGTGGAGCGGCCAGCCGGGTCTCTCGG  
ATCTGGCCCAGGTGAGGAATTTTAAATTGGAACAAGAGCAAGAAAAAACAAATCTTGTCAGAAGCACTGGAGA  
CGCTGGCCACTGAACATCATGAATTAGAGCAGTCTCTGGTGAAAGGCTCTCCACCCGCCAGCATCCTTAGCGAGG  
ACGAGTTCTATGATGCGCTGTCAGATTCCGAGTCCGAAAGGTCCCTGAGTAGATTGGAAGCAGTGACAGCACGCT  
CCTTTGAAGAGGAAGGAGAGCATTGGGCAGTAGAAAACACAGAATGTCGGAAGAAAAAGACTGTGGTGGCGGAG  
ATGCTCTCTCCAATGGCATCAAGAAACACAGAACAAGTTTGCCTTCTCCTATGTTTTCCAGAAATGACTTCAGTA  
TCTGGAGCATCCTCAGAAAATGTATTGGAATGGAACATCCAAGATCACGATGCCAGTTATATTTAATGAGCCTC  
TGAGCTTCTACAGCGCCTAACTGAATACATGGAGCATACTTACCTCATCCACAAGGCCAGTTCACTCTCTGATC  
CTGTGGAAAGGATGCAGTGTGTAGCTGCGTTTGTGTATCTGCTGTTGCTTCTCAGTGGGAACGGACTGGAAAAC  
CTTTCAACCCACTGCTGGGAGAGACTTATGAATTAGTGCAGATGACCTTGGATTTAGACTCATCTCCGAACAGG  
TCAGCCATCACCCACCAATCAGTGCATTTATGCTGAAGGATTAACAATGACTTCATCTTTCATGGCTCTATCT  
ATCCCAAACCTGAAATTCTGGGGGAAGAGTGTAGAAGCAGAACCCAAAGGAACCATCACCTTGGAGCTCCTTGAAC  
ACAAATGAGGCATATACATGGACAAATCCCACCTGCTGTGTGCATAATATCATTGTGGGTAAACTGTGGATCGAAC  
AGTATGGCAATGTGGAATTATAAACACAAAGACTGGGGACAAATGTGTGTTGAATTTTAAGCCATGTGGCCTTT  
TTGGTAAGGAATTACACAAAGTTGAAGGCTACATTCAAGATAAAAGCAAAAAGAAGCTCTGTGCCCTCTATGGGA  
AGTGGACTGAATGTTTATACAGTGTGACCTGCCACGTTTGACGCTTACAAAAAATGATAAGAAAAATACAG  
AAGAGAAGAAGAACAGCAAAACAGATGAGCACCTCTGAGGAGTTGGATGAAATGCCAGTGCCGGATTCTGAAAGTG  
TATTCATTATCCCTGGAAGCGTTCTTCTATGGCGAATAGCCCCACGGCCTCCAAATTCTGCCCAGATGTATAATT  
TTACTAGTTTTGCAATGGTTTTGAATGAAGTAGACAAAGACATGGAGAGTGTGATTCCCAAGACAGACTGCAGGT  
TACGGCCTGACATCAGAGCCATGGAAAATGGAGAGATAGATCAAGCTAGTGAAGAAAAAAACGACTTGAGGAAA  
AACAAAGAGCAGCCCGCAAAAACAGGTCCAAGTCAGAAGAGGACTGGAAGACGAGGTGGTTCCATCAAGGTCTTA  
ATCCCTACAATGGAGCACAGGACTGGATTTACTCTGGCAGCTACTGGGACAGAAATTACTTCAATTTGCCTGACA  
TTTATTAATGCATACAAGTCAGGGTGTTTGGCTAATCTACAAATAAGTCTTAAACCTATGTTTTTAAATTTTT  
TTCCCTTGGTTTTCTACTTATCTTTTAAAAAATAATGAAAAACACTCATGAGATAACTGCATTTACCCAAACAA  
AAGCAGGGTATAAGGCGATATTGGTGATGAAAGTCTTAGGAAAAATGCATAATTTTGCTATAAAATGTACTTATT  
TGGAATACTATTTTATATAGAGGTAAGAGAACACTGCTGGGGAATATGCTTTTTATGGTTGCTGTTGCCATATT  
ACTGAAGGTTTATACCTAAATGTAACCTTAGCTTTATGGAACATATAGTAATCCCAAATCAAGTTATTTTGAAT  
ATTTTATGCTGTCATGCTTGAATGTTTTAGATGTAACCTTTGACATATTTAGAACTCTCCTCCTATACAATGTT  
TATTCTCAGATATAGAGTTATGTCAATTTATAAAGACTTCATTGATAAGATGGCTTTTATTCACTAATCCTC  
CCAATGTTACCCCTTCCATCTTCCAAGAAGAAAAAATGCCTGAATATTCAGAATAGATATTTCTGATTTGAAA  
ATTCTAAAGAATTAACTGGAAAAGTATTTCAATTTACTTAGTGCTCTGAATTTACTTTTACAGTTTTCTGCAGTC  
AGTATCATTTAAATGGTTAAGTTTACATTTGAACTGAAAATATGTATAAAATCTAGCAATTCACAAAAATGCCCT  
AGAAATATAGATTTTAAATCACCATTACATAATGACAAACCTTGTTAAATGCTTCCACTTCCAGTGGCAAAATGCCA  
CTAGGGAAAGTAAGTTGCACTCATGTAAGTATCAAACTATATAAAGGAGGCCTTGTGCATTTCAAGTTTGCAAA  
GTACCTGTGTACTTAAATATGTGTGGAGACCTACTGTACAGTAGTTTTGCCCTTTAATTGGGGCACATTCATC  
TTAAATCTTATAGTATTTATCCACCCAAACCCAGACTGAGATACTGCTCCCAGGGGCCTAGGTAGCTGCCAGTC  
CGTGATTTTAAATTGCTGTCTTGAAGTTAAAGTGTATTAATGAAATAATCTACCTGATGCTAAATAAAGGCTTT  
AGAAATGTTCCCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1464**

MSEKDCGGGDALSNGIKKHRTSLPSPMFSRNDFSIWSILRKCIGMELSKITMPVIFNEPLSFLQRLTEYMEHTY  
LIHKASSLSDPVERMQCVAFAVSAVASQWERTGKPFNPLLGETYELVRDDLGFRLISEQVSHHPPISAFHAEGL  
NNDFFIFHGSIYPKLKFWGKSVEAEPKGTITLELLEHNEAYTWTNPTCCVHNIIVGKLWIEQYGNVEIINHKTGDK  
CVLNFKPCGLFGKELHKVEGYIQDKSKKKLCALYGKWTECLYSVDPATFDAYKKNDKKNTEEEKKNSKQMSTSEEL  
DEMPVPDSESVFIIPGSVLLWRIAPRPPNSAQMYNFTSFAMVLNEVDKDMESVIPKTDCLRPDIRAMENGEIDQ  
ASEEKKRLEEKQRAARKNRSKSEEDWKTRWFHQGPNPYNGAQDWIYSGSYWDRNYFNLDPDIY

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**FIGURE 1465**

GGCACGAGGAAGCTACTCAGATAAGAGGCTCCAAGAGGACATTTTTGGATGTGAAAAACAATGAGAAGGAGGACA  
ACACACATTTACAATCGTCTTAATTTTGTACTCAGAAAAAGGATGTGAAGACAATGCACAGGGAATACAATAGTT  
TCAGATCTGTGTACAGTTTCCTTTTGCTTCATCTCCTGCAACAATGTAATGAAGACACCATGATATCATTAAACAT  
TTCACACAAAAGGAAAATGAGGCTGAAATGGTGTGGGCAAGGCCCAGGAATCTGGAGCATCCCTAACCAAGCAGC  
AGAGCACCTGGGATAGAGAAAGTGCTCAAGAATGTTTCACTTACTGATTACTACAATCAAAAAAAGATACGACACT  
AATTTACCACATTCTTCTTACTTATTTTATGAGATACTATTCTTCCAAGGTGGAGAAAGTGAGAAAGTAGAGTG  
ACGCAGCTAAGGGAGTAAATCGACCCTCAGCCAACAAGTGGCAAAAGCCTGAAGAAAGTGATCAAGATCACTGAT  
GACCCCGCGGCCCATCTCCAAGGGGGCGGGTATCACAACCCCGACGCCACACCACGTATCATTCCGCAAACTCC  
CGCGCCTCCACGCAGAACTGGCAAGAGGGAAGGCGAGACAGCAGTGAACAGCTGGTACGCAGCACCCACAGCAC  
CGCGGCAGCAGCTAGTGCCGACTCCCGCCTAGCTCTTTTGACTCTGTTTCGCGGAAGAATGGGGAAACAGTAAGG  
TTGCGGCGCCTCCCGCGAGACGAGGTACCTGAGGCTGGCCCCGCAGTCCCCCGCCGACCAGCACCGGAGCTTCA  
CACCCCACTTCCGGGGTCAAGTCACCGCCGGGAATCCTGTGATCGCAGAAAGGTAGTCTCAGGTTCCGCCCTAT  
CCAAGTCCCGCCTCCACTGCCTCTCGCCCTGTATCTGTCAACTTCCGGGACGCCGCGCGTCACTAAGCAGCCAAT  
CTCCACTTCCGGACTCATCCAGCCCCCTTCTCCACCCCTTTTCAAGACAGCGCGATTGCGATTTAGGTTTCCGCGC  
ATTTAATTGGCGAAGCTGGAGCGCTAGTCTTCGCTGATTGGTGCCGAGAAATCTGCCCCATAGACACCCGCGGGG  
CGCACAGTTTCAGTCGTCCGTGGGTTTCCCGCCAGCCGAGTCTTGGACCATAATC**ATG**GTGGACATGATGGACT  
TGCCCAGGTCGCGCATCAACGCCGGCATGCTAGCTCAATTCATCGACAAGCCTGTCTGCTTCGTAGGGAGGCTGG  
AAAAGATTCATCCACCGGAAAAATGTTTATTCTTTCAGATGGAGAAGGAAAAAATGGAACCATCGAGTTGATGG  
AACCCCTTGATGAAGAAATCTCTGGAATTGTGGAAGTGGTTGGAAGAGTAACCGCCAAGGCCACCATCTTGTGTA  
CATCTTATGTCCAGTTTAAAGAAGATAGCCATCCTTTTGATCTTGGACTTTACAATGAAGCTGTGAAAAATTATCC  
ATGACTTCCCTCAGTTTTATCCTTTAGGGATTGTGCAACATGAT**TGA**TCTTGATGGATTTTCATACGATTGTAAA  
TGAGCTATATTAAAGTCTATTAAAGGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1466**

MVDMMDLPRSRINAGMLAQFIDKPVCVGRLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVVGRVTA  
KATILCTSYVQFKEDSHPFDLGLYNEAVKIIHDFPQFYPLGIVQHD

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**FIGURE 1467**

GTTTTGAAAGTTGATGGAGCGAACTGCTTTTCCAAAGACTCTTTTGAAAACTTTTTTAAGTAGGCCATTCTGACT  
TTAACATTTCTCTTTGTCTTAACATTAGACAAAAAGTAACCTTCCTGAAGAGGACATGTGATTGGAAGTTGTCAA  
TTGTTGAAGCATTGGTAACTCCAGTCTCTAACGTTTTAGAAAATCATAACAAGCGGTTCTCTACCCCTGTAAAGGT  
GAACTACTGAGTTCCTTCATTATGTCTGATGGAGATTATGATTACCTCATCAAGTTTTTTAGCTTTGGGAGACTCTG  
GTGTAGGGAAGACCAGTGTACTTTACCAATATACAGATGGTAAATTTAACTCCAAATTTATCACAACAGTGGGCA  
TTGATTTTCAGGGAAAAAAGAGTGGTGTACAGAGCCAGTGGGCCGGATGGAGCCACTGGCAGAGGCCAGAGAATCC  
ACCTGCAGTTATGGGACACAGCAGGGCAGGAGAGGTTTCGTAGCTTAACGACAGCGTTCTTCAGAGATGCTATGG  
GTTTTCTTCTACTTTTTTGATCTGACAAATGAGCAAAGTTTCCTCAATGTGAGAACTGGATAAGCCAGCTACAGA  
TGCATGCATATTGTGAAAACCCAGATATAGTGCTGTGTGGAAACAAGAGTGATCTGGAGGACCAGAGAGTAGTGA  
AAGAGGAGGAAGCCATAGCACTCGCAGAGAAATATGGAATCCCCTACTTTGAACTAGTGCTGCCAATGGGACAA  
ACATAAGCCAAGCAATTGAGATGCTTCTGGACCTGATAATGAAGCGAATGGAACGGTGTGTGGACAAGTCCTGGA  
TTCCTGAAGGAGTGGTGCATCAAATGGTCATGCCTCTACGGATCAGTTAAGTGAAGAAAAGGAGAAAGGGGCAT  
GTGGCTGTTGAGAAAGTCAAGTAAGTGACATAGTAGTTCAGGTGGCCCATGCCTGGGATCTTCTCTATGATTGATA  
CATGGCACAGTGAGAGATTAATGGGCATTGTGTACAAATTGCTTCTCACCATCCCCATTAGACCTACGAATAAAG  
CATCCGGTTCTAAAATTAATTTGTTGCAGCTTTGTAAATATTTCTTTAAGATTCAGCCTGAGAGTTAGGAGAAAT  
ATTTGAGGCCAAAAGTGCCTTATACAACCTTAGCCTATTATAGTAAATCATTCAAGGATTGAGAAATTTGCAGT  
CACAGAAGAGTGTATTTATTATGTAGAATGAATGAGGGTACTGTCACCTGCCTTAATGTAGGTAGGCCCAGAGTC  
TTACATTTAAGATCTTACATGCAGTTATAAAACCGCCACAGTCTTCAATCCAGATTTGAAGACTCATGCCATAGG  
TGACATTCTAAAATACCATTAAAGCCACTTAAATGTTAAATAAGAATATACATGCACATCAGCTCAATGTCTTTG  
AGTATTAATTTTATGTAAGCATTCTATTTAACATGAATATAGGACAAATCATGGCTATATCTATAGACCTTGGAT  
AAACTGGATTGACCAATTATACACTCACGGTGACTTTTTTATTGGTGGGAAGGGGATTGGGGTGGGGCAGGCTGG  
CTTAATGTAATATGAGCAACCAAAGTGGGACTTCTGTCTCCCCGCTATATTCCCATTGCTCTGAATGGTTGATTG  
AAGGGTCAGGGAAGTAGATTTTATGGCTTTAGTTCACTGTGATTGTACATTTATACTTGGCCTATGTGCTGGCCG  
CACCTGAACATAGCTGGTGCTTATGCCGAGTTATTTGTGATGAGTAAATATTTAGTTTTCTTTTTCTTCATATTTA  
TAATGTTGATCTGGCATCCTCAGGCTGCAGCTTTATTAGCTTATAAATTACTCATCTCTGTCTTTACCAGCAGGC  
TCTGTATTGTTGATATTTGCAACTTGTTTTGCTTTTCCATTGGTGGAATTGAAATAATTAGTTTTTAATTACATA  
AGATGCCTGTTTGCTATTTGGTGGAAGATAGATGTTTCATATTGAAGCAGTCACATTTGTACTGTAGTTCAATAAA  
AGAAAAATGAAGTATTCTGTAGCCTATATTTTTCATAGAGCTCATGAGCATTACTGTACTTGCTGGGTCTTGCC  
AAGATCATTTATTCCGCTGCATTGCCAAAGTGTCTTCATACCAAATTAAAGGTGGTTTTAATATATGTTTCATGG  
AAGTTGTTTATAAAATTCAAAGGTATTTCAATTTAGGTGAAAAGTCTTATTTATTAAAGTGGTTTGAATAAAGTAG  
ATCAAACTTCCAGAGATCTTAATGGCTATATAGGAAGAAATATCACTCACCATAATTTAAATAAAGAATAAAAA  
TACATGTATTTTATGGTGGCAAATGTTTGGTAGAACTGTAATTAGAAAAATACAAGTATATTTGCGTGATGGTTA  
CACTAGAAGCCCAGACTTTACGACTACACAATATATTCATGTATCTAACTGTACTTGTACCCCTAAATTTATT  
TTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1468**

MSDGDYDYLIKFLALGDSGVGKTSVLYQYTDGKFNSKFITTVGIDFREKRVVYRASGPDGATGRGQRIHLQLWDT  
AGQERFRSLTTAFFRDAMGFLLLFDLTNEQSFLNVRNWISQLQMHAYCENPDIVLCGNKSDLEDQRVVKEEEAIA  
LAEKYGIPYFETSAANGTNISQAIEMLLDLIMKRMERCVDKSWIPEGVVRSNGHASTDQLSEEKEKGACGC



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**FIGURE 1469**

AGCCGCCGCTCGCCGCTTCCCCTCGTTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC  
GCAATTCGTTCGGCCCCGCGGGGGGGCGGCCTCCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG  
CTGGG**ATGG**CGCGTCCGCGGCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC  
ACTGGCCGGCCCGGATTGATGAACTCCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTT  
TTGGCACCCATGAAACTGCAATTTCTAGGTCCCAAAGACCTTTTTTCCATATAAGGAGTACAAAGACAAGTTTGGA  
AGTCAAACAAACGGAAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT  
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG  
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAGAAAGAATGAAAAAGCAGGCTCAAAACGGAAAAAGT  
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG  
AGGAAAACAAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACCTCAGACTTGCAGAAAA  
CCAGTGAAGGGACCT**TAA**CTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGTTG  
TCTAATATTCTTGGATTTGATATGAACCAACACATAGTCTTGTTGTCATTGACAGAACCCCGAGTTTGTATGTAC  
ATTATTCATATTCCTCTCTGTGTGTTTCGGGGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT  
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTGCAGACTTATACATG  
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCTGCCTTGACCCACCATCATCAAACACTCAGTT  
AAATATAAATTAACATTTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTCTCTCTGTGACAGAAC  
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAATAATTGTCCTTCAGTTTGGAGCC  
ATGTGTAAAGTTTAACCATATTGTAAAATATCTATTCGGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA  
AAATTCATATTGTTATGTACACAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAT  
AAAGGCAATGATTTATTTTTTTCCAGTGCCAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT  
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAATAA  
ACTGTTTTCTTTTGGAATAAATTAGAAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT  
GCTATTGTGATAATAGAGAATTTTATTTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG  
TTTTATCAATCCTGTTAATGCTTGTCTTGGAACATCTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG  
TAAAAAATCAAAACAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT  
TGAGGTTGTAAGCAAATAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA  
TTAAAGCAAAAATTGTTTCGCAGC

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**FIGURE 1470**

MARPRPREYKAGDLVFAKMKGYPHWPARIDELPEGAVKPPANKYPIFFFFGTHETAFLGPKDLFPYKEYKDKFGKS  
NKRKGFNEGLWEIENNPVVKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKS  
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

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**FIGURE 1471A**

GCGGCCGCTCCCCGGAGCGGCTAAAGCGGCGGCGACCGAGGCGAGCAATGGGCACGGCAGTCTCGGCAGAGCAC  
AGGCGCTTCACGCGGCTGCTCGGGCTCCGCGCTGACCTGCCCGGGCGGCCGCTATTGTCTTTCTCCGCGGCGA  
AGGTGAAGAGTTGTCCCAGCTCGGCCCCGCGGGGAGCCCCGGGAGCCGCACGTGTCTGGGTCATGAAACTTAAT  
CCACAGCAAGCTCCCTTATATGGTGATTGTGTTGTTACAGTGCTGCTTGCTGAAGAGGACAAAGCTGAAGATGAT  
GTAGTGTCTTACTTGGTATTTTTGGGTTCCACCCTCCGTCAGTGTACAAGTACTCGGAAGGTCAGTTCTGATACA  
TTGGAGACCATTGCTCCTGGTCATGATTGTTGTGAAACAGTGAAGGTGCAGCTCTGTGCTTCCAAAGAGGGCCTT  
CCCGTGTTTGTGGTGGCTGAAGAAGACTTTTCATTTTCGTCCAGGATGAAGCGTATGATGCAGCTCAATTCCTAGCA  
ACCAAGTGCTGGAAATCAGCAGGCTTTGAACTTTACCCGTTTTCTTGACCAGTCAGGACCCCCATCTGGGGATGTG  
AATTCCCTTGATAAGAAGTTGGTGCTGGCATTTCAGGCACCTGAAGCTGCCACGGAGTGGAATGTATTGGGGACA  
GATCAGAGTTTGCATGATGCTGGCCCCGCGAGAGACATTGATGCATTTTGTGTGCGGCTGGGACTGCTGAGGTTG  
ACGTGGTTTCTGTTGCAGAAGCCAGGTGGCCGCGGAGCTCTCAGTATCCACAACCAGGAAGGGGCGACGCTGTG  
AGCTTGGCCTTGGAGCGAGGCTATCACAAGCTGCACCAGCTTCTAACCGAGGAGAATGCTGGAGAACCAGACTCC  
TGGAGCAGTTTATCCTATGAAATACCGTATGGAGACTGTTCTGTGAGGCATCATCGAGAGTTGGACATCTATACA  
TTAACCTCTGAGTCTGATTCACATCATGAACACCCATTTCTGGAGACGGTTGCACTGGACCAATTTTTAACTT  
ATGAACATCCAACAGCAACTAATGAAAACAAACCTCAAGCAGATGGACAGTCTTATGCCCTTAATGATGACAGCA  
CAGGATCCTTCCAGTGCCCCAGAGACAGATGGCCAGTTTCTTCCCTGTGCACCGGAGGCCACGGACCCCTCAGCGA  
CTTTCTTCTTCTGAAGAGACTGAGAGCACTCAGTGCTGCCAGGGAGCCCTGTTGCACAGACTGAAAGTCCCTGT  
GATTTGTCAAGCATAGTTGAGGAGGAGAATACAGACCGTTCTGTAGGAAGAAAAATAAAGGCGTGGAAGAAAA  
GGGGAAGAGGTGGAGCCAGCACCTATTGTGGACTCTGGAAGTGTATCTGATCAAGACAGCTGCCTTCAGAGCTTG  
CCTGATTGTGGAGTAAAGGGCACGGAAGGCCCTTTCGTCTGTGGAAACAGAAATGAAGAACTGGAACAAAATCT  
TCTGGAATGCCACAGACCAGGAGTCCCTGAGCAGTGGAGATGCTGTGCTTCAGAGAGACTTGGTCATGGAGCCA  
GGCACAGCCCAGTATTCTCTGGAGGTGAACTGGGAGGCATTTCAACAACAAATGTGAGTACCCAGACACTGCA  
GGGGAATGGAACATGGGCTCATGAACCCAGATGCCACTGTTTGGAAGAATGTGCTTCAGGGAGGGGAAAAGTACA  
AAGGAAAGATTTGAGAACTCTAATATTGGCACAGCTGGAGCCTCTGACGTGCACGTACAAAGTAAGCCTGTGGAT  
AAAAATCAGTGTTCCAACTGTGCCCTGTGCCAGTTCCCTGGATGGTAACAAACCTGCTGAGTCTTCACTTGCA  
TTTAGTAATGAAGAAACCTCCACTGAAAAAACAGCAGAAACGGAACTTCACGAAGTCGTGAGGAGAGTGCTGAT  
GCTCCAGTAGATCAGAATTCTGTGGTGATTCCAGCTGCTGCAAAGACAAGATTTTCAGATGGATTAGAACCCTTAT  
ACTCTCTTAGCAGCAGGCATAGGTGAGGCAATGTCACCCCTCAGATTTAGCCCTTCTTGGGCTGGAAGAAGATGTA  
ATGCCACACCAGAACTCAGAAACAAATTCATCTCATGCTCAAAGCCAAAGGGCAAATCCTCACCCATTTGTTCT  
ACAACCTGGAGACGATAAACTTTGTGCAGACTCTGCATGTCAACAGAACACAGTGACTTCTAGTGCGCATTTGGTT  
GCAAACTGTGTGATAACATAGTTAGCGAGTCCGAAAGCACCACAGCAAGGCAACCCAGCTCACAAGATCCACCC  
GATGCCCTCCCACTGTGAAGACCCACAGGCTCATACAGTCACCTCTGACCCTGTAAGGGATACCCAGGAACGTGCG  
GATTTTGTCTTTCAAAGTGGTGGATAACAAAGGCCAACGAAAAGATGTGAACTAGATAAACCTTTAACAAAT  
ATGCTTGAGGTGGTTTACATCCACATCCAGTTGTCCCTAAATGGAGAAAGAACTGGTGCCAGACCAGGCAGTA  
ATATCAGACAGTACTTTCTCTCTGGCAAACAGTCCAGGCAGTGAATCAGTAACCAAGGATGACGCACTTTCTTTT  
GTCCCTCCCAGAAAGAAAAGGGAACAGCAACTCCTGAACTACATACAGCTACAGATTATAGAGATGGCCAGAT  
GGAAATTCGAATGAGCCTGATACGCGGCCACTAGAAGACAGGGCAGTAGGCCTGTCCACATCCTCCACTGCTGCA  
GAGCTTCAGCACGGGATGGGGAATACCACTCTCACAGGACTTGGTGGAGAGCATGAGGGTCCCGCCCCCTCCAGCA  
ATCCAGAAAGCTCTGAATATCAAGGGGAACACTGACTCTTCCCTGCAAAGTGTGGGTAAAGGCCACTTTGGCTTTA  
GATTCAGTTTTGACTGAAGAAGGAAAACCTTCTGGTGGTTTCAGAAAGCTCTGCAGCTCAGGAACAAGATAAGGAT  
AAAGCGGTGACCTGTTCTCTATTAAGGAAAATGCTCTCTCTTCAGGAACCTTGCAGGAAGAGCAGAGAACACCA  
CCTCCTGGACAAGATACTCAACAATTTTCATGAAAAATCAATCTCAGCTGACTGTGCCAAGGACAAAGCACTTCAG  
CTAAGTAATTCACCGGTGCATCCTCTGCCTTTCTTAAGGCAGAACTGAACATAACAAGGAAGTGGCCCCACAA  
GTCTCACTGCTGACTCAAGGTGGGGCTGCCAGAGCCTGGTGCCACCAGGAGCAAGTCTGGCCACAGAGTCAAGG  
CAGGAAGCCTTGGGGGCGAGAGCACAACAGCTCCGCTCTGTTGCCATGTCTGTTGCCAGATGGGTCTGATGGGTCC  
GATGCTCTTAACTGCAGTCAGCCTTCTCCTCTGGATGTTGGAGTGAAGAACACTCAATCCAGGGGAAAACTAGT  
GCCTGTGAGGTGAGTGGAGATGTGACGGTGGATGTTACAGGGGTTAATGCTCTACAAGGTATGGCTGAGCCCAGA  
AGAGAGAATATATCACACAACACCCAAGACATCCTGATTCCAAACGTCTTGTTGAGCCAAGAGAAGAATGCCGTT

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**FIGURE 1471B**

CTAGGTTTGCCAGTGGCTCTACAGGACAAAGCTGTGACTGACCCACAGGGAGTTGGAACCCCAGAGATGATACCT  
CTTGATTGGGAGAAAGGGAAGCTGGAGGGAGCAGACCACAGCTGTACCATGGGTGACGCTGAGGAAGCCCCAAATA  
GACGATGAAGCACATCCTGTCTACTGCAGCCTGTTGCCAAGGAGCTCCCCACAGACATGGAGCTCTCAGCCCAT  
GATGATGGGGCCCCAGCTGGTGTGAGGGAAGTCATGCGAGCCCCGCCTTCAGGCAGGGAAAGGAGCACTCCCTCT  
CTACCTTGCAATGGTCTCTGCCCAGGACGCACCTCTGCCTAAGGGGGCAGACTTGATAGAGGAGGCTGCCAGCCGT  
ATAGTGGATGCTGTCATCGAACAAGTCAAGGCCGCTGGAGCACTGCTTACTGAGGGGGAGGCCTGTACATGTCA  
CTGTCCAGCCCTGAGTTGGGTCTCTCACTAAAGGACTAGAGAGTGTCTTTACAGAAAAAGTGAGTACTTTCCCA  
CCTGGGGAGAGCCTACCAATGGGCAGTACTCCTGAGGAAGCCACGGGGAGCCTTGAGGATGTTTTGCTGGAAGG  
GAGGAGCCAGAGAAGATCATTCTTACCTGTCCAGGGGCTGAGCCAGCAGCAGAAATGCCAGACGTGAAAGCTGAA  
GATGAAGTGGATTTTAGAGCAAGTTCAATTTCTGAAGAAGTGGCTGTAGGGAGCATAGCTGCTACACTGAAGATG  
AAGCAAGGCCCAATGACCCAGGCGATAAACCCGAGAAAACTGGTGTACAATAGAGCCATGCCCTGATGCAGCATCT  
CTTCTGGCTTCCAAGCAGAGCCCAGAATGTGAGAACTTCTGGATGTTGGACTGGGCAGAGAGTGTACCTCAAAA  
CAAGGTGTACTTAAAAGAGAATCTGGGAGTGATTCTGACCTCTTTCCTCACTCAGCCAGTGATGACATGGACAGCATC  
ATCTTCCCAAAGCCAGAGGAAGAGCATTGCGCTGTGATATCACCAGGATCCAGTTTATCCACCGATGACACGGCT  
TCACTGGACCGACATTCTTCTCATGGCAGTGATGTGTCTCTCTCCAGATTTTAAAGCCAAACAGGTCAAGAGAT  
CGGCAAAGCCTTGATGGATTCTACAGCCATGGGATGGGAGCTGAGGGTCGAGAAAGTGAGAGTGAGCCTGCTGAC  
CCAGGCGACGTGGAGGAGGAGAGATGGACAGTATCACTGAAGTGCCTGCAAAGTGTCTGTCTTAAGGAGCTCC  
ATGCGCTCTCTTTCTCCCTTCCGGAGGCACAGCTGGGGGCTGGGAAAAATGCAGCCAGCGATGCAGAAATGAAC  
CACCGGAGTTCAATGCGAGTTCTTGGGGATGTTGTCAGGAGACCTCCCATTCATAGGAGAAGTTTCAGTCTAGAA  
GGCTTGACAGGAGGAGCTGGTGTGCGAAACAAGCCATCCTCATCTCTAGAAGTAAGCTCTGCAAATGCCGAAGAG  
CTCAGACACCCATTAGTGAGTGGTGAAGAACGGGTTGACTCTTTGGTGTCACTTTTCAAGAGGATCTGGAGTCAGAC  
CAGAGAGAAACATAGGATGTTTGATCAGCAGATATGTACAGATCTAAGCAGCAGGGATTTAATTACTGTACATCA  
GCCATTTCTCTCCATTGACAAAATCCATCTCATTAATGACAATCAGCCATCCTGGATTGGACAATTCACGGCCC  
TTCCACAGTACCTTCCACAATACCAGTGCTAATCTGACTGAGAGTATAACAGAAGAGAAGTATAATTTCTGCCA  
CATAGCCCCCTCCAAGAAAGATTCTGAATGGAAGAGTGAACAAAAGTCAAGTCGTACATTAGCTACATCAAGAAT  
AAAATGTCTAGCAGCAAGAAGAGCAAGAAAAAGGAAAAAGATAAGATTAAGGAGAAGGAGAAAGATTCT  
AAAGACAAGGAGAAAGATAAGAAGACTGTCAACGGGCACACTTTTCAGTTCCATTCTGTGTGGGTCCCATCAGC  
TGTAAGCAGTGATGAAGCCCTTACCAACAAAGATGCCTATACTTGTGCAAATTGCAGTGCTTTTGTCCACAAA  
GGCTGCCGAGAAAGTCTAGCCTCCTGTGCAAAGGTCAAAATGAAGCAGCCCAAGGGAGCCTTCAGGCACATGAC  
ACATCATCACTGCCACGGTCATTATGAGAAACAAGCCCTCACAGCCCAAGGAGCGTCTCGGTCCGCAGTCCTC  
CTGGTGGATGAAACCGCTACCACCCCAATATTTGCCAATAGACGATCCAGCAGAGTGTCTCGCTCTCCAAAAGT  
GTCTCCATACAGAACATTACTGGAGTTGGCAATGATGAGAACATGTCAAACACCTGGAAATTCCTGTCTCATTCA  
ACAGACTCACTAAATAAAATCAGCAAGGTCAATGAGTCAACAGAATCACTTACTGATGAGGGAGTAGGTACAGAC  
ATGAATGAAGGACAACACTACTGGGAGACTTTGAGATTGAGTCCAAACAGCTGGAAGCAGAGTCTTGGAGTCGGATA  
ATAGACAGCAAGTTTCTAAAACAGCAAAAGAAAGATGTGGTCAAACGGCAAGAAGTAATATAGAGTTGATGCAG  
ACAGAGTTTCATCATGTCCGCACTCTCAAGATCATGAGTGGTGTGTACAGCCAGGGGATGATGGCGGATCTGCTT  
TTTGAGCAGCAGATGGTAGAAAAGCTGTTCCCTGTTTGGATGAGCTGATCAGTATCCATAGCCAATTCCTCCAG  
AGGATTCTGGAGCGGAAGAAGGAGTCTCTGGTGGATAAAAGTGAAAAGAACTTTCTCATCAAGAGGATAGGGGAT  
GTGCTTGTAATCAGTTTTTCAGGTGAGAATGCAGAACGTTTAAAGAAGACATATGGCAAGTTTTGTGGGCAACAT  
AACCAGTCTGTAAACTACTTCAAAGACCTTTATGCCAAGGATAAGCGTTTTCAAGCCTTTGTAAAGAAGAAGATG  
AGCAGTTTCAAGTTGTTAGAAGGCTTGGAAATTCAGAGTGCATATTGCTTGTAACCTCAGCGGATTACCAAGTACCCA  
GTTTTATTCCAAAGAATATTGCAGTGATACCAAAGACAATGAAGTGGAGCAGGAAGATCTAGCACAGTCCCTTGAGC  
CTGGTGAAGGATGTGATTGGAGCTGTAGACAGCAAAAGTGCCAAGTTATGAAAAGAAAGTGCCTCTCAATGAGATT  
TATACAAAAGACAGATAGCAAGTCAATCATGAGGATGAAGAGTGGTCAGATGTTTGCCAAGGAAGATTTGAAACGG  
AAGAAGCTTGTACGTGATGGGAGTGTGTTTCTGAAGAATGCAGCAGGAAGGTTGAAAGAGGTTCAAGCAGTTCTT  
CTCACTGACATTTTAGTTTTCTTCAAGAAAAAGACCAGAAGTACATCTTTGCATCATTGGACCAGAAGTCAACA  
GTGATCTCTTTAAAGAAGCTGATTGTGAGAGAAGTGGCACATGAGGAGAAAGGTTTTATTCTGTATCAGCATGGGG  
ATGACAGATCCAGAGATGGTAGAAGTCCATGCCAGCTCAAAGAGGAACGAAACAGCTGGATTACAGATCATTACAG

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**FIGURE 1471C**

GACACAATCAACACCCTGAACAGAGATGAAGATGAAGGAATTCCTAGTGAGAATGAGGAAGAAAAGAAAATGTTG  
GACACCAGAGCCCGAGAATTAAAAGAACTTCACCAGAAGGACCAAAAAATCCTACTCTTGTTGGAAGAGAAG  
GAGATGATTTTCCGGGACATGGCTGAGTGCAGCACCCCTCTCCAGAGGATTGCTCCCCAACACATAGCCCTAGA  
GTTCTCTTCCGCTCCAACACAGAAGAGGCTCTCAAAGGAGGACCTTTAATGAAAAGTGCAATAAATGAGGTGGAG  
ATCCTTCAGGGTTTGGTGAGTGGAAATCTGGGAGGCACACTTGGGCCGACTGTCAGCAGCCCCATTGAGCAAGAT  
GTGGTCCGTTCCCGTTTCCCTGCCCCGGAGAGCAGAGACCTTTGGAGGATTTGACAGCCATCAGATGAATGCTTCA  
AAAGGAGGCGAGAAGGAAGAGGGAGATGATGGCCAAGATCTTAGGAGAACGGAATCAGATAGTGGCCTAAAAAG  
GGTGAAAATGCTAACCTGGTATTTATGCTTAAAAGAAACAGTGAGCAGGTTGTCCAGAGCGTTGTTTCTCTCTAC  
GAGCTCCTCAGCGCTCTGCAGGGTGTGGTGTCTGCAGCAGGACAGCTACATTGAGGACCAGAACTGGTGCTGAGC  
GAGAGGGCGCTCACTCGCAGCTTGTCCCGCCGAGCTCCCTCATTGAGCAGGAGAAGCAGCGCAGCCTGGAGAAG  
CAGCGCCAGGACCTGGCCAACCTGCAGAAGCAGCAGGCCCAGTACCTCGAGGAGAAGCGCAGGCGCGAGCGTGAG  
TGGGAAGCTCGTGAGAGGGAGCTGCGGGAGCGGGAGGCCCTCCTGGCCAGCGCGAGGAGGAGGTGCAGCAGGGG  
CAGCAGGACCTGGAAGAGCGGGAGGAGCTCCAGCAGAAGAAGGGCACATAACCAGTATGACCTGGAGCGACTG  
CGTGCTGCCAGAAACAGCTTGAGAGGGAACAGGAGCAGCTGCGCCGGGAGGCAGAGCGGCTCAGCCAGCGGCAG  
ACAGAACGGGACCTGTGTGAGGTTTCCCATCCACATACCAAGCTGATGAGGATCCCATCGTTCTTCCCCAGTCTT  
GAGGAGCCCCCTCGCCATCTGCACCTTCCATAGCCAAATCAGGGTCATTGGACTCAGAACTTTAGTGTTCCCCA  
AAAAGGAACAGCATCTCTCGGACACACAAAGATAAGGGGCCTTTTACATACTGAGTTCAACCAGCCAGACAAAC  
AAAGGACCAGAAGGGCAGAGCCAGGCCCTGCGTCCACCTCTGCCTCTACCCGCCTGTTTGGGTAAACAAAGCCA  
AAGGAAAAAGAGGAGAAAAAAGAAGAACAACACAGCCGCTCTCAGCCCGGTGATGGTCCCGCGTCAGAAAGTA  
TCAGCAGAGGGTGAAGAGATCTTCTGCTGACCTCTTCTCTCTGCTGAGGCAGCTGCCTCCTGATCCTGGCCAG  
CCCACCTCTCCTGCTGTCCCGCGGTGCACAAGTCTCTTACACTGGACGCCCACTGCTCCTCAGCGTCCAGTCTCT  
CTGGGCGGCCCCAGGTCTTGACAATAAGCAACAGATGATATTGAGTGTGCGGTGGGGAAGGAGGCCCAGACTCT  
GCTTCGGCCATGATTTGTGACTGCCAGGACTCTCAGGTTGGGCTGGCCCTACTCAGGATTACACTGAAAGTAAT  
GGCCTCGTAAGTACAGGTGATGGTTTTGGACACGTCAGGAATTCCTAAAGGCTGAAAGAGTGATCCAAGTAAGG  
TCTGAACCTCCGACTGCCTTTTATTTGGGGGAACACAAAACCAAACAGCAGATGTTTTGGACTTGATCTGTGTAC  
GTACATGGGGACCTGTCTGCATATACACACGGGGAATGCCAGAAGAAGGCCAGTCTGCACCAGGCGTCTGGTCA  
ACTTAGCACAAAGGGCAGTGCCTGGACGGACCCGGAGCCCCCGCATATCAGCAGTTCACCCAGTACTCCTCAGAGA  
CTGGTTTCCCTCTAAACCCATCCCGGGCACATACCACCCCTGTTTTGCATGTATTTCTCATTTTCAATTTAGGGAT  
GACAAACATTTGTGAAACCAGTGAGAGAAGGCTTGATGTGTATAAAAGACGTGATGTGCACCACCTCGATCTCGG  
TGTTTCAGGCACTAAAGCAACAAACAACCCATAGTATCTCATTTTGTTCATCAGATCCAGAAGAAATATCCTGGT  
TTTCCAGCATGTTTACCCACATGTTTTGGGCATGGATAAAGTGAAGAGGCCTACTCACCATTATCCCTGCAGCGT  
GACACCTTTTGATTGTCACTGACCACTCAGAAGGGGCCACGGCCTCCTGGCTGTGTTTCTGAGCCCCCGTCTGTG  
CTCTCCAGACAGCAGCTGTCTGGCCCTTGCTGGGTGAGGGCACACCACTGCCAGGGGTGAGCCTCGCACCCAGG  
CCAGGCAGAAGCTGTGCTCTGAAGCTAGGACAGCTGGCTGAGAAGTGGGTTGAGGCGAAGGGTGAAGCCATGTGT  
AGCAGTTCCTGCCAGTGCAGATCTGGAGAGGAGCTGGCCCGGAAGGCGTGGTTGTGAAAGCGCCCTTCTTATGTT  
AGGAGGCCTTGGAATAATTGGATTTCTTCAAAAATACATGTAAAGGTCTGTTGTTGAATTGTACTCTGCCCTGG  
AAGCAGATACAGATGGCTGCCTGCTGCTCGGCTTTGCTTTTGCTTTTCCCACCGTGTTTTCTATCTTTGTTCACTT  
GAGGCTTTCCCAGCTGGTGTGTGCAGGACAGTTTATGGTAATGTTGCCCTCTGAGGCCCGTACACCAGAAGGG  
AGGCCCTGGAAAATTTTGTGCTTCCAACGTGGCCTTCAATTCTTGCTTTTTTGCCCTCGGAAGCATGGGGCTTT  
TGAGCACACTTAAAAAATAAACCGGAATTC

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**FIGURE 1472**

MKLNPPQAPLYGDCVVTVLLAEEDKAEDDVVFYLVFLGSTLRHCTSTRKVSSDTLETIAPGHDCCE TVKVQLCAS  
KEGLPVFVVAEEDFHVQDEAYDAAQFLATSAGNQQA LNFTRFLDQSGPPSGDVNSLDKKLVIAFRHLKLPTEWN  
VLGTDQSLHDAGPRETLMHFAVRLGILLRLTWFL LQKPGGRRALS IHNQEGATPVSLALERGYHKLHQLL TEENAG  
EPDSWSSLSYEIPYGDCSVRHHRELDIYTLTSESDSHHEHPFPGDGCTGPIFKLMNIQQQLMKTNLKQMDSLMPL  
MMTAQDPSSAPETDGQFLPCAPEPTDPQRLSSSEETESTQCCPGSPVAQTESPRDLSSIVEEENTDRSCRKKNKG  
VERKGEEVEPAPIVDSGTVSDQDSC LQSLPDCGVKGTEGLSSCGNRNEETG TKSSGMPTDQESLSSGDAVLQ RDL  
VMEPGTAQYSSGGELGGISTTNVSTPDTAGEME HGLMNP DATVWKNVLQGGESTKERFENS NIGTAGASDVH VTS  
KPVDKISVPNCAPAASSLDGNKPAESSLAFSNEETS TEKTAETETSRSC EESADAPVDQNSVVIPAAAKDKISDG  
LEPYTLLAVGIGETMSPPDLALLGLEEDVMFHQNSE TNSSHAQSQKGKSPICSTTGDDKLCADSACQ QNTVTSS  
GDLVAKLCDNIVSESESTTARQPSSQDPPDASHCEDPQAHTVTS DPVVRTQERADFCPFKVVDNKGQRKDV KLDK  
PLTNMLEVVSHPHFVVPKMEKELVPDQAVISDSTFSLANSPGSESVTKDDALS FVPSQKEKGTATPELHTATDYR  
DGPDGNSNEPDTRPLEDRAVGLSTSSTAELQHGMGNTSLTGLGGEHEGPAPPAIPEALNIKGNTDSSLQSVGKA  
TLALDSVLTEEGKLLVVSESSAAQE QDKDKAVTCSSIKENALSSGTLQEEQRTPPPQD TQQFHEKSI SADCAKD  
KALQLSNSPGASSAFLKAETEHNK EVAPQVSLLTQGGAAQSLVPPGASLATESRQEALGA EHNSSALLPCLLPDG  
SDGSDALNCSQPSPLDVGVKNTQSQGKTSACEVSGDVTVDVTGVNALQGM AEP RRENISHNTQDILIPNVLLSQE  
KNAVLGLPVALQDKAVTDPQGVGTPEMIPLDWEKGKLEGADHSCTMGDAEEAQIDDEAHPVLLQPVAKELPTDME  
LSAHDDGAPAGVREVMRAPPSGRERSTPSLPCM VSAQDAPLPKGADLIEEAASRIVDAVIEQVKAAGALLTEGEA  
CHMSLSSPELGPLTKGLES AFTEKVSTFPPGESLPMGSTPEEATGSLAGCFAGREEPEKIILPVQGPEPAAEMPD  
VKAEDEVD FRASSISEEVAVGSIAATLKMKQGPMTQAINRENWCTIEPCPD AASLLASKQSPECENFLDVGLGRE  
CTSKQGV LKRESGSDSDLFHSPSDDMSIIFPKPEEEHLACDITGSSSSTDDTASLDRHSSHGSDVSLSQILKPN  
RSRDRQSLDGFYSHGMGAEGRESESEPADPGDVEEEEEMDSITEVPANC SVLRSSMRSLSPFRRHSWGP GKNAASD  
AEMNHRSSMRVLGDVVRPPIHRRSFSLEGLTGGAGVGNKPSSSLEVSSANA EELRHPFSGEERVDSLVS LSEED  
LES DQREHRMFDQQICHRSKQQGFNYCTSAISSPLTKSISLMTISHPGLD NSRPFHSTFHNTSANLTESI TEENY  
NFLPHSPSKKDSEWKSGTKVSRFTSYIKNMSSSKKSKEKEKEKDKIKEKEKDSKDKEKD KKT VNGHTFSSIPVV  
GPISCSQCMKPF TNKDAYTCANCSAFVHKGCRESLASC AKVKMKQPKGSLQA HDTSSLPTVIMRNKPSQPKERPR  
SAVLLVDETATTPIFANRRSQQSVSLSKSVSIQNI TGVGN DENMSNTWKFLSHSTDSL NKISKVNESTESLTDEG  
VG TDMNEGQLLGDFEIESKQLEAESWSRIIDSKFLKQQKKDVVKRQEV IY

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**FIGURE 1473A**

CTGCGGTCCAGTCTAGGGGGTCTCAGATTGGCGGGGATGGGCAGCAGCGGCAGGTGGCCTTGGCTTTTGCTGCAG  
CCGTCAACGACCTATCATCGGGGTCTGCGTAAGGTCCGGCTGGCTGGGACTTGGCTGTGGGTGGGATGGACTGG  
CTGCCGGACCGAGTGCCTTGCAGTTGGTAGGAGTATGAGGCAGAGTGATGCACACCCGGGCGCCAGCATCGTTC  
TAATTGCCGGAGACATTGCCTCAGACTGTGCGCTGCTAGAGGCTGCGTTTCTGAGCAGGAAGCCCGTTTCTGGG  
ATTGGAAC TACCCTTCTTGGCCAGCGGGAAGTCCCCAAGGACGGAGTCGAAAGGTCAAATCTTATCTGTCTCAGTGC  
TGTGTGACAGCATCGCAACGGGATCTGCAGAACCTGAACTCGATCCGTAATGCCTCCTGCCTGCCTCTTTCAAGA  
**TGG**AGGTGAAACCTGTGGGAGAACCTACTCAAGAGGTGTCTAAATTCAAACCTTTCCACCAAGGTAGAAAGCACGG  
GACACTGGCTGGTGAAGATCATGTTTGAATATGGGAAGTTTTAAAGACAGAGGAGAGCTCGATTCAAGGACTGGG  
GTGAAGAGGTAGAGGAAGGAGCTGTTTACCATGTCAACCTCAAAGAGTCCAGATTCAACAGGCTGCCAATAAAG  
GAGCAAGATGGCTAGGGGTTGAAGGGGACCAGCTGCCTCCAGGACACACAGTCAGTCAATATGAAACCTGTAAAG  
TCAGGACCATAAAAGCTGGCACCTTGGAGAAGCTTGTGGAGAACCTGCTGACAGCTTTTGGGGACAATGACTTTA  
CCTATATCAGCATCTTTCTTTCAACGTACAGAGGCTTTGCCTCCACTAAAGAAGTGCTGGAAC TACTGCTGGACA  
GGTATGAAAACCTGACAAGCCCAAACCTGTGAAGAAGATGGAAGCCAAAGTTCATCAGAGTCCAAAATGGTGATCA  
GGAATGCAATCGCTTCCATACTAAGGGCCTGGCTTGACCAGTGTGCAGAAGACTTCCGAGAGCCCCCTCACTTCC  
CTTGCTTACAGAACTGCTGGATTATCTCACACGGATGATGCCGGGCTCTGACCCAGAAAGAAGAGCACAAAATC  
TTCTTGAGCAGTTTTCAGAAGCAAGAAGTGGAACCTGACAATGGGCTTCCCAACACGATCTCCTTCAGCCTGGAAG  
AGGAAGAGGAAC TGGAGGTGGAGAGTCAGCAGAATTCACGTGCTTCTCAGAAGATCTCGTGGCAGAGCAGCTGA  
CCTACATGGATGCACAACCTCTTCAAGAAAGTAGTGCTCACCCTGCCTGGGCTGCATTTGGTCTCGAAGGGATA  
AGAAGGAAAAACAACATTTGGCTCCTACGATCCGTGCCACCCTCTCTCAGTTTAATACCCTCACCAAATGTGTTG  
TCAGCACCATCCTGGGGGGCAAAGA ACTCAAAACTCAGCAGAGAGCCAAAATCATTGAGAAGTGGAATCAACATCG  
CTCATGAATGTAGACTCCTGAAGAATTTTTCTCCTTGAGGGCCATCGTTTCGGCACTGCAGTCTAATTCCATCT  
ATCGGTTAAAAAAGACTTGGGCTGCCGTCCCAAGGGACCGAATGCTGATGTTTGAAGA ACTTTTTCAGATATCTTCT  
CAGACCATAATAACCATTTGACCAGCCGAGAACTACTGATGAAGGAAGGAACCTCAAATTTGCAAACCTGGACA  
GCAGTGTGAAAAGAAAACCAGAAGCGTACCCAGAGGCGGCTGCAGCTCCAGAAGGACATGGGTGTGATGCAGGGAA  
CTGTGCCCTACCTGGGCACCTTCTGACTGACCTGACCATGCTTGACACTGCCCTTCAGGACTACATCGAGGGTG  
GACTGATAAACTTTGAGAAAAGGAGAAGGGAATTTGAAGTGATTGCCAGATAAAGCTCTTACAGTCTGCCTGCA  
ACAGCTATTGCATGACCCAGACCAAAGTTTCATCCAGTGTTCCAGAGGCAGCAGCTCCTGACAGAGGAGGAGA  
GCTATGCCCTGTCTATGTGAGATTGAAGCAGCTGCTGACGCCAGCACCACTCGCCCAAGCCTCGGAAGAGCATGG  
TGAAGAGACTCAGCCTACTGTTTCTAGGGTCTGACATGATCACCAGTCCCCTCCCAAGAGCAGCCCAAGT  
CCACTGCCAGCGGGAGCTCTGGTGAAAGCATGGACTCTGTGACCGTGTCTCCTGCGAGTCAAGCACTCAGAGG  
CTGAGGAGGGCTCCATTACTCCCATGGACACCCCTGATGAGCCTCAAAAAAGCTCTCTGAGTCTCCTCATCCT  
GTTCTTCTATCCATTCCATGGACACAAATTCCTCAGGGATGTCTTCTTAATCAACCCCTCTCCTCCCTCCGT  
CCTGCAACAACAACCCCAAATCCACAAGCGCTCTGTCTCGGTGACGTCCATTACCTCGACTGTGCTGCCTCCTG  
TTTACAACCAACAGAATGAAGACACCTGCATAATCCGCATCAGTGTGGAAGACAATAACGGCAACATGTACAAGA  
GCATCATGTTGACGAGCCAGGATAAAACCCCGCTGTGATCCAGAGAGCCATGCTGAAGCACAATCTGGACTCAG  
ACCCCGCCGAGGAGTACGAGCTGGTGCAGGTTCATCTCGGAGGACAAAAGAACTTGTGATTCCAGACTCAGCAAATG  
TCTTTTATGCCATGAACAGCCAAGTGAAC TTTGACTTCATTTTGCGCAAAAAGAACTCCATGGAAGACAAGTGA  
AACTGCGTAGCCGACCACTTGACGTTGCCAGGACAGCTAAACGGGGCTGTGGAGTTACAGACACAGCAAAA  
TCACCCTCT**TGA**AGGGAGGGMCCAGTGGCCCTTGTTTGCCAAAGGCAGAGTGGGGCTGAGAAACAGGCTGCGGTG  
ATTGCAATTACCATCCGGTGTTTCGAGGATCATTTGGTGAAGTCAGCAGATATTTATTGAGTTCTGTGGTGTGCAA  
AGCATTATGATAGGCACCGTGGGGAAACTGGAATGAATTTGACATGAAAAGGATGAACGATTCACTGATTCTCT  
TTGACTCATTTGAGACTAAAATGCAGAATTACCAACATTTAAAAACATATATATGCACATGTATTTGGTATGCATG  
TGTATCTATATAAAAAATATATAAGAGGGACTTTATGGGATAGTATGGACTATGGAAAAACAAATTTGCACAATGG  
CCTGGGAAGTTGAGGTCACTTTTTACAGGGAAATAGAAGAAACTGAGAACCTAGTCTCGTATATTCTGAGTAAAT  
GGAATCAGTCTTGGGAATAGAGAGTGTCCTTTGTGCCAGTATTACAAGAAGCCCAAAC TTTATTTTTATAAAGGG  
AGAGGATGACTTTTCTCAATCAAGTGCCACCAGATAAAAAACAAC TGCAGAGGCTGGAAC TGCACAGGCTGTATGA  
AAGGCCACTTTTGAAAAGGTTTGGATGAGCTGGTGGCCTTCAACCTCTGCCTGCATCTGCCACTTTCTGCTACCC  
TAGGGAGGCCAGGAGGAGCTTCGGAGGACCATCGCCCCACTGGTCTAGCCATCATGACACCTCTGGAGGTGTCAA

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**FIGURE 1473B**

GCTCCTGAAACAAGCTCATTTCAGTTTCTGGCAACCCCGTGTAATTCGTTTTCCCCCTAAAGAACATATCATAA  
TCATTGCACAAATAACCATGTTCTTTGGTAATGAAGCCAGAAAAGAAAGCGCAAAAGAATGGTGACTCATTTGGA  
CTCTTATCTGTCCTTGGGAATGTCAGTGCCTTCATTGCTTCTCTGATTGCCTTTTGCATGTAAAACTATGTGTCTGG  
AGTCTTTTTGCCATCTGGATCTTAGTACCTCTTTATTATGTGCAATTTATTCCTCAGGTGTGGAAATTTCTACTGC  
AATTGACTGACGTKTGATTATTTTGGAGCTTGTGAAAGATTTCTGAACAGTGATTGTCCCGTTAATAGCCCCCTCAG  
AAGATGTTCCCTGCTGATAACAGCATCCTATTTTACTTACTTTTATAGCATTACTGTGCCTAGTCGTGGGGAAAG  
AGATGGGGCTGTATAGATTATCTGAATCATTTGTCTAAGAGGTACATTCTTCCAGATGGAATCAATAACTTTTTT  
TTTTCCAGGTTCCTCGTCTGCTATCACAGTATCATTGTTAAGTGACACTTTTGTCTCTCATAACACCATCACAC  
TCTTCCTTCCAAGTCTGAGCTGTGCTGGGGTTTGAAGTAAAGCCATATGTGGAATATTGACATGTGTAAGAAGC  
ACTTTCAGAAATGTTGTCCTTTTTAAGAAATGATTCTCAAAATACCAGTTTTTATTCCAAAAATTTAGAGAACAAA  
CCCGGAATATGAAGTGCAGATTGTAACATGGAGCTATTTTTTTTTTCTAATCCATAATACAGCTCCTAAAAGTT  
GTGTGGGATTTGCGTTGCATAAATAGCCATGTGAATTCACAAGAAGCACCAGGGAAAGTTTAGAGATTTGCGGC  
AATGGACCGAAGAACGGGCCAGGAAGTCCTCCAATTTCTTTGGTCTTTCCAGGAGATTGGACTACACATTGTAA  
AGACTGACTGGGTTTCAACTAGTCAAAAAGCACTTTCTTCTGTTTTCAATCCCTGTTTCGATTTGTGCTTCTGTGC  
TTGTAGGAGAGATGGCCAGGGTGGCAGCCCTCATGCAGGTTGAAGTATATGTAGCCTCAGCCTGATATTCTTGGT  
GCGAAGGTAAAAAAAAAAAAAAAAATAAATAAAACCATTGGCCTGGTTGAGGGCGTGACCACCAAGACATATATGTTG  
TGCCCGTGTTTCATCCTGTGTATTTATACTGTATATGTAGAGTCTAGATTTATATACTGCAATGTAAATATATAT  
ATATTTACCTTTTTTAAAGACAATGGAAATTCCAAGTAGCTAAACTTAGCTTCATTTATTTAATGCCACTTTAA  
ATGTCTTAAATTTGTTTCCTGGTGGACAGCCGGGTAATGCTTTTAGCTGCTCGCATGCTTGTCTTTCTGCATCTC  
CATCATCTGTTTACCTTTTGGTTAAACTAATAAACTAGTTTGGGACTTGGCTGGCATGTGCTGCCAGACCCAAAG  
GGAAAAAAAAA



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**FIGURE 1474**

MEVKPVGEPTQEVSKFKLSTKVESTGHWLVEDHVRIWEVLKTEESSIQDWGEEVEEGAVYHVTCLKRVQIQQAANK  
GARWLGVEGDQLPPGHTVSQYETCKIRTIKAGTLEKLVENLLTAFGDNDFTYISIFLSTYRGFASTKEVLELLLD  
RYGNLTSPNCEEDGSQSSSESKMVIRNAIASILRAWLDQCAEDFREPPHFPCLQKLLDYLTRMMPGSDPERRAQN  
LLEQFQKQEVETDNGLPNTISFSLEEEEELEGGESAEFTCFSEDLVAEQLT YMDAQLFKKVVP HHCLGCIWSRRD  
KKENKHLAPTIRATISQFNTLT KCVVSTILGGKELKTQQRAKIIEKWINIAHECRLLNKFNSSLRAIVSALQSNSI  
YRLKKTWAAVPRDRMLMFEELSDIFSDHNNHLTSRELLMKEGTSKFANLDSSVKENQKRTQRRQLQKDMGVMQG  
TVPYLGTFITDLTMDLTALQDYIEGGLINF EKRRREFEVIAQIKLLQSACNSYCMTPDQKFIQWFQRQQLLTEEE  
SYALSCEIEAAADASTTSPKPRKSMVKRLSLLFLGSDMITSPPTKEQPKSTAGSSGESMDSVSVSSCESNHSE  
AEEGSITPMDTPDEPQKKLSESSSSCSSIHSMDTNSSGMSSLINPLSSPPSCNNNPKIHKRSVSVTSITSTVLPP  
VYNQQNEDTCIIRISVEDNNGNMYKSIMLTSQDKTPAVIQRAMLKHNLDSDPAEYELVQVISEDKELVIPDSAN  
VFYAMNSQVNFDFILRKKNMEEQVKLSRSTSLTLPRTAKRGCWSYRHSKITL

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**FIGURE 1475**

CTCCACTGACCGTCCCGACG**ATG**CTACGCGCGCCCCGGCTGCCTCCTCCGGACCTCCGTAGCGCCTGCCGCGGGCCC  
TGGCTGCGGCGCTGCTCTCGTCGCTTGC GCGCTGCTCTCTTCTAGAGCCGAGGGACCCGGTGGCCTCGTCGCTCA  
GCCCCATTTTCGGCACCAAGACTCGCTACGAGGATGTCAACCCCGTGCTATTGTGCGGGCCCCGAGGCTCCGTGGC  
GGGACCCTGAGCTGCTGGAGGGGACCTGCACCCCGGTGCAGCTGGTCGCCCTCATTCGCCACGGCACCCGCTACC  
CCACGGTCAAACAGATCCGCAAGCTGAGGCAGCTGCACGGGTTGCTGCAGGCCCGCGGGTCCAGGGATGGCGGGG  
CTAGTAGTACCGGCAGCCGCGACCTGGGTGCAGCGCTGGCCGACTGGCCTTTGTGGTACGCGGACTGGATGGACG  
GGCAGCTAGTAGAAAAGGGACGGCAGGATATGCGACAGCTGGCGCTGCGTCTGGCCTCGCTCTTCCCGGCCCTTT  
TCAGCCGTGAGAACTACGGCCGCCTGCGGCTCATCACCAGTTCCAAGCACCGCTGCATGGATAGCAGCGCCGCCT  
TCCTGCAGGGGCTGTGGCAGCACTACCACCCTGGCTTGCCGCCGCCGGACGTGCGAGATATGGAGTTTGGACCTC  
CAACAGTTAATGATAAACTAATGAGATTTTTTGTACTGTGAGAAGTTTTTAACTGAAGTAGAAAAAAATGCTA  
CAGCTCTTTATCAGTGGAAGCCTTCAAACTGGACCAGAAATGCAGAACATTTTAAAAAAGTTGCAGCTACTT  
TGCAAGTGCCAGTAAATGATTTAAATGCAGATTTAATTCAAGTAGCCTTTTTACCTGTTTATTTGACCTGGCAA  
TTAAAGGTGTTAAATCTCCTTGGTGTGATGTTTTTGACATAGATGATGCAAAGGTATTAGAATATTTAAATGATC  
TGAAACAATATTGGAAAAGAGGATATGGGTATACTATTAACAGTCGATCCAGCTGCACCTTGTTTCAGGATATCT  
TTCAGCACTTGGACAAAGCAGTTGAACAGAAACAAAGGTCTCAGCCAATTTCTTCTCCAGTCATCTCCAGTTTG  
GTCATGCAGAGACTCTTCTTCCACTGCTTTCTCTCATGGGCTACTTCAAAGACAAGGAACCCCTAACAGCGTACA  
ATTACAAAAACAAATGCATCGGAAGTTCCGAAGTGGTCTCATTGTACCTTATGCCTCGAACCTGATATTTGTGC  
TTTACCCTGTGAAAATGCTAAGACTCCTAAAGAACAAATCCGAGTGCAGATGTTATTAAATGAAAAGGTGTTAC  
CTTTGGCTTACTCACAGAACTGTTTCATTTTATGAAGATCTGAAGAACCCTACAAGGACATCCTTCAGAGTT  
GTCAAACCAGTGAAGAATGTGAATTAGCAAGGGCTAACAGTACATCTGATGAAGTAT**TGAG**TAACTGAAGAACATT  
TTTAATTCTTTAGGAATCTGCAATGAGTGATTACATGCTTGTAATAGGTAGGCAATTCCTTGATTACAGGAAGCT  
TTTATATTACTTGAGTATTTCTGTCTTTTCACAGAAAAACATTGGGTTTCTCTCTGGGTTTGGACATGAAATGTA  
AGAAAAGATTTTTCAGTGGAGCAGCTCTCTTAAGGAGAAACAAATCTATTTAGAGAAACAGCTGGCCCTGCAAAT  
GTTTACAGAAATGAAATTCTTCTACTTATATAAGAAATCTCACACTGAGATAGAATTGTGATTTTATAATAACA  
CTTGAAAAGTGCTGGAGTAACAAAATATCTCAGTTGGACCATCCTTAACCTTGATTGAAGTGTCTAGGAACCTTAC  
AGATTGTTCTGCAGTTCTCTCTTTCTTTTCTCAGGTAGGACAGCTCTAGCATTTTCTTAATCAGGAATATTGTGG  
TAAGCTGGGAGTATCACTCTGGAAGAAAGTAACATCTCCAGATGAGAATTTGAAACAAGAAACAGAGTGTTGTAA  
AAGGACACCTTCACTGAAGCAAGTCGGAAAGTACAATGAAAATAAATATTTTTGGTATTTATTTATGAAATATTT  
GAACATTTTTTCAATAATTCCTTTTTTACTTCTAGGAAGTCTCAAAGACCATCTTAAATTATTATATGTTTGGAC  
AATTAGCAACAAGTCAGATAGTTAGAATCGAAGTTTTTCAAATCCATTGCTTAGCTAACTTTTTTATTCTGTAC  
TTGGCTTCGATTTTTATATTTTCTATTATATGAAATGTATCTTTTGGTTGTTTGATTTTTCTTTCTTTCTTTGT  
AAATAGTTCTGAGTTCTGTCAAATGCCGTGAAAGTATTTGCTATAATAAGAAAATTCTTGTGACTTTAAAAAAA  
AAAAAAAAAAAA

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**FIGURE 1476**

MLRAPGCLLRTSVAPAAALAAALLSSLARCSLLEPRDPVASSLSPYFGTKTRYEDVNPVLLSGPEAPWRDPELLE  
GTCTPVQLVALIRHGTRYPTVKQIRKLRQLHGLLQARGSRDGGASSTGSRDLGAALADWPLWYADWMDGQLVEKG  
RQDMRQLALRLASLFPALFSRENYGRLRLITSSKHRCMDSSAAFLOGLWQHYHPGLPPPDVADMEFGPPTVNDKL  
MRFFDHCEKFLTEVEKNATALYHVEAFKTGPEMQNILKKVAATLQVPVNDLNADLIQVAFFTCSEFDLAIKGVKSP  
WCDVFDIDDAKVLEYLNDLKQYWKRGYGYTINSRSSCTLFQDIFQHLDKAVEQKQRSQPISSPVILQFGHAETLL  
PILLSLMGYFKDKEPLTAYNYKKQMRKFRSGLIVPYASNLI FVLYHCENAKTPKEQFRVQMLLNEKVLPLAYSQE  
TVSFYEDLKNHYKDILQSCQTSEECELARANSTSDEL

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**FIGURE 1477**

ACTGCCACCTCGGTTCGGTTCGGTGCTTACTTCGCTGCCAGCTGGTCTGTGCGCC**ATGA**ACCCGGACCTGCGCAGGGGA  
GCGGGATTCCGCCAGCTTCAACCCGGAGCTGCTTACACACATCCTGGACGGCAGCCCCGAGAAAACGCGGCGCCG  
CCGAGAGATCGAGAACATGATCCTGAACGACCCAGACTTCCAGCATGAGGACTTGAACCTTCTAACTCGCAGCCA  
GCGTTATGAGGTGGCTGTCAGGAAAAGTGCCATCATGGTGAAGAAGATGAGGGAGTTTGGCATCGCTGACCCTGA  
TGAAATTATGTGGTTTAAAAAACTACATTTGGTCAATTTTGTGGAACCTGTGGGCCTCAATTACTCCATGTTTAT  
TCCTACCTTGCTGAATCAGGGCACCCTGCTGAGAAAGAGAAAATGGCTGCTTTCATCCAAAGGACTCCAGATAAT  
TGGCACCTACGCCCAGACGGAAATGGGCCACGGAACCTCACCTTCGAGGCTTGGAACCACAGCCACGTATGACCC  
TGAAACCCAGGAGTTCATTCTCAACAGTCCTACTGTGACCTCCATTAAATGGTGGCCTGGTGGGCTTGAAAAAC  
TTCAAATCATGCAATAGTCCTTGCCAGCTCATCTAAGGGGAAATGCTATGGATTACATGCCTTTATCGTACC  
TATCCGTGAAATCGGGACCCATAAGCCTTTGCCAGGAATTACCGTTGGTGACATCGGGCCCAAATTTGGTTATGA  
TGAGATAGACAATGGCTACCTCAAATGGACAACCATCGTATTCCCAGAGAAAACATGCTGATGAAGTATGCCCA  
GGTGAAGCCTGATGGCACATACGTGAAACCGCTGAGTAACAAGCTGACTTACGGGACCATGGTGTGTTGTCAGGTC  
CTTCCTTGTTGGGAGAAGCTGCTCGGGCTCTGTCTAAGGCGTGACCATTGCCATCCGATACAGCGCTGTGAGGCA  
CCAGTCTGAAATGAAGCCAGGTGAACCAGAACCACAGATTTTGGATTTTCAAACCCAGCAGTATAAACTCTTTCC  
ACTCCTGGCCACTGCCTATGCCTTCCAGTTTGTGGGCGCATACATGAAGGAGACCTATCACCGGATTAACGAAGG  
CATTGGTCAAGGGGACCTGAGTGAAGTGCCTGAGCTTCATGCCCTCACCGCTGGACTGAAGGCTTTACCTCCTG  
GACTGCAAAACACTGGCATTGAAGCATGTGGATGGCTTGTGGTGGGCATGGCTATTCTCATTGCAGTGGTCTTCC  
AAATATTTATGTCAATTTACCCCAAGCTGTACCTTTGAGGGAGAAAACACTGTCATGATGCTCCAGACGGCTAG  
GTTCTGATGAAAAGTTATGATCAGGTGCACTCAGGAAAAGTTGGTGTGTGGCATGGTGTCTATTTGAACGACCT  
GCCCAGTCAGCGCATCCAGCCACAGCAGGTAGCAGTCTGGCCAACCATGGTGGATATCAACAGCCCCGAAAAGCCT  
AACCGAAGCATATAAACTCCGTGCAGCCAGATTAGTAGAAAATTGCTGCAAAAAACCTTCAAAAAGAAGTGATTCA  
CAGAAAAAGCAAGGAGGTAGCTTGGAACCTAACTTCTGTTGACCTTGTTCGAGCAAGTGAGGCACATTGCCACTA  
TGTGGTAGTTAAGCTCTTTTCAGAAAACTCCTCAAAATTCAAGATAAAGCCATTCAAGCTGTCTTAAGGAGTTT  
ATGTCTGCTGTATTCTCTGTATGGAATCAGTCAGAACGCGGGGGATTTCCTTCAGGGGAGCATCATGACAGAGCC  
TCAGATTACACAAGTAAACCAGCGTGTAAGGAGTTACTCACTCTGATTTCGCTCAGATGCTGTTGCTTTGGTTGA  
TGCATTTGATTTTCAGGATGTGACACTTGGCTCTGTGCTTGGCCGCTATGATGGGAATGTGTATGAAAACCTGTT  
TGAGTGGGCTAAGAACTCCCCACTGAACAAAGCAGAGGTCCACGAATCTTACCACAAGCACCTGAAGTCACTGCA  
GTCCAAGCTCT**TGA**AGTGTACAAAGGACAAGTTTAATCTGCTTCAGAAAGCGCCTGTGTGCAACTCAAATTTGTG  
GAATCTTTTCGAATTCAAATAGCTATAGAGCAAATGATAAATTGACCCCTTTTTATAAATGGAGGGAAAAAATGA  
ACAGATTCAGAGATTAAATGAAAAAAGCAGATGTGTTTAAAGTGCAATTAACACTGAAAGAGACCTGTTAAAC  
CATTCAGAAAAAGCTTAAGAAATGCGATATGACTTCCTTTTGTAAATGCTGCTGATCCCAGTAGACTATGACTTTT  
GATAATTAGCAGAATTTAACTACTGAGTAGTTGATTATTTTCACATTTTAATTGCTAATCACTGGCTATATAAGT  
GTTTTTAAGCAAGGGTATTTTTGAAGTGGTGTAGAACCCTTCCACGCTTTCCTGCTCAGTGTTCTACCAGACAAG  
AAAAGGGACTTGGGGAAGGAACTTATTGGAACTTGATGCGAATTAGGTTCTTCTTGCACAACTCTGCCTGC  
TTGCTCTCCCTTGCTGATGGGTGCAATTTCTCAAATATTCATGCTAGCAATTTTCCACGGGGGGGCTTTTTC  
CCACGGGGGCTCTATAGGGGCCATTTCTCCGGTAAATAGGAATTTCCCTTTAAGGGGTGCCAGTAGTAGGAG  
TATAGGGAACCTCTCAGCTGTGGCACTGTTGTAGCTTTGGAGTCAGAGTGACTCTGGGCAATCAGATTTCCACA  
TATTCTGCATCTTGGATAAGCATTAAAAGTTGGGATACTAATTTGGATAAAAAAATGCACTAGGCAAACTCCAGC  
GAGACAGAAAAGTATAGGGAAACCTCTCAGCTGTGGCACTGTTGTAGCTTTGGAGTGCAGAGTGTAACCTCTGGCGA  
CAATCAGATTTACATATTCTGTCTCTTGGCATAAGCCATTAAAAGCTTGGAGATTACTGTATTTGGCATTAAA  
AAAAAATGTCACCTTAGGTCAGCACTCCAGACGTAGCACAGAAAAACCTTTGACACAAACCATGTGTTCTGATT  
TTTGGTTTCA

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**FIGURE 1478**

MNPDLRRERDSASFNPPELLTHILDGSPEKTRRRREIENMILNDPDFQHEDLNFLTRSQR YEAVVRKSAIMVKKMR  
EFGIADPDEIMWFKKLHLVNFVEPVGLNYSMFIP TLLNQGTAEKĒKWLLSSKGLQIIIGTYAQTEMGHGTHLRGL  
ETTATYDPETQEFILNSPTVTSIKWWPGGLGKTSNHAIVLAQLITKGKCYGLHAFIVPIREIGTHKPLPGITVGD  
IGPKFGYDEIDNGYLKMDNHRIPRENMLMKYAQVKPDGTYVKPLSNKLT YGTMVFVRSFLVGEAARALSKACTIA  
IRYSAVRHQSEMKPGEPEPQILDFQTQQYKLFPLLATAYAFQFVGAYMKETYHRINEGIGQGDLSELPELHALTA  
GLKAFTSWTANTGIEACRMACGGHGYSHCSGLPN IYVNFTPSCTFEAGENTVMMLQTARFLMKSYDQVHSGKLVCG  
MVSYLNDLPSQRIQPQQVAVWPTMVDINSPE SLTEAYKLRAARLVEIAAKNLQKEVIHRKSKEVAWNLT SVDLVR  
ASEAHCHYVVVKLFSEKLLKIQDKAIQAVLRSLCLLYSLYGISQNAGDFLQGSIMTEPQITQVNQ RVKELLTLIR  
SDAVALVDAFDFQDVTLGSVLGRYDGNVYENLF EWAKNSPLNKAEVHESYHKHLKSLQSKL

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**FIGURE 1479**

GTGACGGGGAGGCGGTGCCCCGGGGCATCTCCGCGGCGGAACTCAGCCTGTGAGAAGTCACTGCTTTGGGGAGACC  
TGATCTGGCTGTGCCAGATGGACACTGAGAAAGAAGTAGAAGACTCAGAATTAGAAGAGGAACATGGAGCTGATC  
CAGGACACCTCCCGCCCCGCACTGGAGTACGTGAAGGGGGTCCCGCTCATCAAGTACTTTGCAGAGGCACTGGGG  
CCCCTGCAGAGCTTCCAAGCCCGACCTGATGACCTGCTCATCAACACCTACCCCAAGTCTGGCACCACCTGGGTG  
AGCCAGATACTGGACATGATCTACCAGGGCGGCGACCTAGAGAAGTGTAACCGGGCTCCCATCTACGTACGGGTG  
CCCTTCCTTGAGGTCAATGATCCAGGGGAACCTCAGGGCTGGAGACTCTGAAAGACACACCGCCCCCACGGCTC  
ATCAAGTCACACCTGCCCCCTGGCTCTGCTCCCTCAGACTCTGTTGGATCAGAAGGTCAAGGTGGTCTATGTTGCC  
CGAAACCCAAAGGACGTGGCGGTCTCCTACTACCATTTCCACCGTATGGAAAAGGCGCACCTGAGCCTGGGACC  
TGGGACAGCTTCCTGGAAAAGTTCATGGCTGGAGAAGTGTCCTACGGGTCTGGTACCAGCACGTGCAGGAGTGG  
TGGGAGCTGAGCCGCACCCACCCTGTTCTCTACCTCTTCTATGAAGACATGAAGGAGAACCCCAAAAGGGAGATT  
CAAAAGATCCTGGAGTTTGTGGGGCGCTCCCTGCCAGAGGAGACCATGGACTTCATGGTTCAGCACACGTCGTTT  
AAGGAGATGAAGAAGAACCCTATGACCAACTACACCACCGTCCCCCAGGAGCTCATGGACCACAGCATCTCCCCC  
TTCATGAGGAAAGGCATGGCTGGGGACTGGAAGACCACCTTCACCGTGGCGCAGAATGAGCGCTTCGATGCGGAC  
TATGCGGAGAAGATGGCAGGCTGCAGCCTCAGCTTCCGCTCTGAGCTGTGAGAGGGGCTCCTGGAGTCACTGCAG  
AGGGAGTGTGCGAATCTACCCTGACCAATGGGCTCAAGAATAAAGTATGATTTTTGAGTCAGGCACAGTGGCTCA  
TGTCTGCAATCCCAGCGATTTGGGAGGTTGAGCTGGTAGGATCACAATAGGCCACGAATTTGAGACCAGCCTGGT  
AAAATAGTGAGACCTCATCTCTACAAAGATGTAAAAAAATTAGCCACATGTGCTGGCACTTACCTGTAGTCCCAG  
CTACTTGGGAAGCAGAGGCTGGAGGATCATTTAGCCCGAGGAGGTTGTGGATACAGTGAGTTATGACATGCCCAT  
TCACTACAGCCTGGATGACAAGCAAGACCCTCCCTCCAAAGAAAATAAAGCTCAATTAAAAAT

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**FIGURE 1480**

MELIQDTSRPPLEYVKGVP LIKYFAEALGPLQSFQARPDDLINTYPKSGTTWVSQILDMIYQGGDLEKCNRAPI  
YVRVPFLEVNDPGEPSGLETLKDTPPPRLIKSHLPLALLPQTLLDQKVKVYVARNPKDVAVSYYHFRMEKAHP  
EPGTWDSFLEKFMAGEVSYGSWYQH VQEWWELSRTHPVL YLFYEDMKENPKREIQKILEFVGRSLPEETMDFMVQ  
HTSFKEMKKNPMTNYTTVPQELMDHSISP FMRKGMAGDWKTTF TVAQNERFDADYAEKMAGCSLSFRSEL

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**FIGURE 1481**

GGGGCAGCGCAGGGCAGACGGCGGCAGGAGAAGCAAGATGAATGCAGGCTCAGATCCTGTGGTCATCGTCTCGGC  
GGCGCGGACCATCATAGGTTCCCTTCAATGGTGCCTTAGCTGCTGTTCCCTGTCCAGGACCTGGGCTCCACTGTTCAT  
CAAGAAGTCTTGAAGAGGGCCACTGTGGCTCCGGAAAGATGTGTCTGAGGTCACTTTGGACATGTCTTGGCAGC  
AGGCTGTGGGCAGAATCCTGTTAGACAAAGCCAGTGTGGGTGCAGGAATTCCTACTCTGTTCCAGCATGGAGCTG  
CCAGATGATCTGTGGGTCAAGCCTAAAAGCTGTGTGCCTTGCAGTCCAGTCAATAGGGATAGGAGACTCCAGCAT  
TGTGGTTGCAGGAGGCATGGAAAATATGAGCAAGGCTCCTCAGTTGGCTTACTTGAGAACAGGAGTAAAGATAGG  
TGAGATGCCACTGACTGACAGTATACTCTGTGATGGTCTTACAGATGCATTTCACTGTTCATATGGGTATTAC  
AGCTGAAAATGTAGCCACAAAATGGCAAGTGAGTAGAGAAGATCAGGACAAGGTTGCAGTTCTGTCCAGAACAG  
GACAGAGAATGCACAGAAAGCTGGCCATTTTGACAAAGAGATTGTACCAGTTTTGGTGTCACTAGAAAAGGTCT  
TATTGAAGTTAAAACAGATGAGTTTCCTCGCCATGGGAGCAACATAGAAGCCATGTCCAAGCTAAAGCCTTACTT  
TCTTACTGATGGAACGGGAACAGTCACCCAGCCAATGCTTCAGGAATAAATGATGGTGCTGCAGCTGTTGCTCT  
TATGAAGAAGTCAGAAGCTGATAAACGTGGGCTTACACCTTTAGCACGGATAGTTTCCTGGTCCCAAGTGGGTGT  
GGAGCCTTCCATTATGGGAATAGGACCAATTCAGCCATAAAGCAAGCTGTTACAAAAGCAGGTTGGTCACTGGA  
AGATGTTGACATATTTGAAATCAATGAAGCCTTGCAGCTGTCTCTGCTGCAATAGTTAAAGAACTTGGATTAAA  
CCCAGAGAAGGTCAATATTGAAGGAGGGGCTATAGCCTTGGGCCACCCTCTTGGAGCATCTGGCTGTCGAATTCT  
TGTGACCCTGTTACACACACTGGAGAGAATGGGCAGAAGTCGTGGTGTTCAGGCCCTGTGCATTGGGGGTGGGAT  
GGGAATAGCAATGTGTGTTGAGAGAGAAATGAATGTGTGTTGAGAGAGAATGAATTGCTTAACTTTGAACAAC  
CTCAATTTCTTTTAACTAATAAAGTACTAGGTTGCAATATGTGAAATCAGAGGACCAAAGTACAGATGGAAAC  
CATTTCTTACATCACAAAACCAAGTTTACAGCTTGTAATTTACTTTAATGTGTAATACTCAACTCACGGTACA  
AGACAATTGCATTTAACATTGTTATAAATAAAAGGAACATCAGATCAATCATTAATAAAAAAAAAA



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**FIGURE 1482**

MNAGSDPVVIVSAARTIIGSFNGALAAVPVQDLGSTVIKEVLKRATVAPEDVSEVIFGHVLAAGCGQNPVRQASV  
GAGIPYSVPAWSCQMICGSGLKAVCLAVQSIGIGDSSIVVAGGMENMSKAPHLAYLRTGVKIGEMPLTDSILCDG  
LTDAFHNCHMGITAENVATKWQVSREDQDKVAVLSQNRTEAQAQAGHFDKEIVPVLVSTRKGLIEVKTDEFFPRHG  
SNIEAMSKLKPYPFLTDGTGTVPANASGINDGAAVAALMKKSEADKRGLTPLARIVSWSQVGVEPSIMGIGFIPA  
IKQAVTKAGWSLEDVDIFEINEAFAAVSAAIVKELGLNPEKVNIEGGAIALGHPLGASGCRILVTLLHTLERMGR  
SRGVAALCIGGGMGIAMCVQRE

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**FIGURE 1483A**

CCGTTACGCGTTCGGTCCTCCTTGGCTGACTCACCGCCCTCGCCGCCGCACC**ATGG**ACGCCCCCAGGCAGGTGG  
TCAACTTTGGGCGCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGATACAAAAGGAATTATTAGACTACA  
AAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGCCAAGATTATTAACAATACAGAGA  
ATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAACATAAGGTGATTTTTCTGCAAGGAGGTGGGTGCGGCCAGT  
TCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCTGACTATGTGGTGACAGGAGCTTGGT  
CAGCTAAGGCCGCGAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCACCCTAAACTTGGGAGTTATACAA  
AAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTATTATTGCGCAAATGAGACGGTGC  
ATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTGTGACATGTCTCAAACCTTCCTGT  
CCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCAGAAGAATGTTGGCTCTGCTGGGGTCA  
CCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCCCTCGGTCTCTGGAATACAAGGTGC  
AGGCTGGAACAGCTCCTTGTACAACACGCCTCCATGTTTCAGCATCTACGTGATGGGCTTGGTTCTGGAGTGA  
TTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATCTCAAACAATTTATGAGATTATTG  
ATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAAGATGAATATTCCATTCCGCATTG  
GCAATGCCAAAGGAGATGATGCTTTAGAAAAAGATTTCTTGATAAAGCTCTTGAACCTCAATATGTTGTCTTGA  
AAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTGACAATTGAAGACGTTTCAAGCTGG  
CCGCCTTCATGAAAAAATTTTTGGAGATGCATCAGCTA**TGAA**CACATCCTAACAGGATATACTCTGTTCTTGAA  
CAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAAGTTAACACAGTATTTTTCTCAAATGAACATGTT  
TATTGCAGATTCTTCTTTTTTGAAGAACAACAGCAAAACATCCACAACCTCTGTAAAGCTGGTGGGACCTAATGT  
CACCTTAATTCTGACTTGAACCTGGAAGCATTTTAAAGAAATCTTGTTGCTTTTCTAACAAATTCCCGCTATTTTG  
CCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACCTTGCTGTGGACTTAATAATGCAAGTTGCGATTAATTATT  
TCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGGCCCTCTAGGTGCTGAATCTACACATCTGTGGGGTC  
TCCTGGGTTTCAGTGGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGTGGTTTTAAGAGTGCCAGGCGAAGG  
GCAAACTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTTTATATATGTTTATATTAGCAAGG  
TCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATAATACAGTTATCACTGATATATGT  
AGACACTTTTGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCATTAGCAAGAGTTGTACCCCTCC  
CCAGTCTTCGCCTTCCTCTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGTTCTTGATTCATTTTTACCATTCT  
TTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCATTAACTAAACATTTCTGTAA  
TTACCCATATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGAGTGATACTTTGCTGAAAAGTCTT  
TCCCCTATTGTTTATCTATTGTGAGTATTTTATGTTGAATATGTAAAGAACATTAAAGTCCTAAACACGGTCTA  
AGCTAAGTGAAGGGGAAGATCTGAGAGCGTGCTGTTTGTGGCTGTTGATGCATATTCTGTGATGTAACAGGTCTG  
GGGCCTCACTTTACCCCATTTGTAAATGGGGCTAATGTCACCTGCCCTTTACCTACCTCAGAGGGATTGTTGTA  
AGCAAACCTGTTAATCTTCGAAAACGACCATTTCACTTCTTGATATCAAGTGCTAACCAGTATGTTCTTCTTTT  
TTATGTAAGGGACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGCATTTCTGAGCAGGGCTTTGTTCT  
CTATGTGCATTAGGACTTTTATCATGCCCTTGTTCTGTGTGTAGTTACTTGACAGCATCAAATGCCGCCTCTTCC  
TAATGTCTTCAAGTTTTTCATGAACCTAGCAACCCACCTTCCACCATGGTTCTGGGCGCCTGATTTTGCTGTGAC  
TCCCAGACCCAGCCACTGTTTCTGCCACCCTGTAAACAGGCCATTAAAGCTCCCCAGTGTTTCAGCCTCCTTCACTC  
CCTTGTTTTCCCTGTTTGCTATGTGTACCTGGGCCCTACAGACAGGGGCACACGCTTATGGATGTGTGTACCAT  
GAGATGAGAATGGGTAGATGGAACGGAGACCATCAAGCCACACCCCTTCTTAAACTGGGGACATGAGCCTGAG  
CAGAAAAGGTGAAGAAGAGCCATGGGACACAGAGTTGACCCAGCCAGGGGAAAGCCCAGCTCTCTTTAAACCAG  
CTAAGCCATTCCAGTCTCCTGTGAAGCCAAAAGGGACAGGAACCGTGCAAAGGAACTGGAAACTTTTCCCCGC  
TGGGTAGAGCATGTTGCTGATACTCTTCTGTTTTCAAGGGAAACAATCACATTGTTTGATTCCAAATGGTAAATG  
AACACTCACTATTCTTCAGGCTTCAGTAAATCTTTTTTCTTCCCTTCATATATATATACACAACACACACACA  
TATGTATATCTATACACACATGTGTGTTGTGTATATGCATGTGTGTGTGTGCGTGTGTGTATAGTTTTAGCTCCA  
AGCCAAGCAAGTTTGTGTTTGGATAGAGGGGAACCTTAACTATTAACCTACAAGTTGTATGTCTGTGGTATCTTGAT  
TTTCCCATTCTTAAAGATGAATTTCAAAAGCCATAAAGCGTGAAATTAGAGCTGGACTTAAGACTCATTGGCCG  
ACCATCCTGTGTCTGGCCTGGCCCTGCAGTAAGAAGCGTGTCTGGGTCTGGAGAAGGGTGCTTCCGAGAGTGTG  
CAGGTGGCCCTTCCCCTTGGAGGCGAGAAGAGAGAATGTGCTGTCTATCTTCCCTGGTTTTTCAGTCCACAGAGTCG  
GTAGACCAGGGGTACGTGACTGGGGAAAATCTCACATCTCCTTGCTGAAAACATTTCCCTGCTGTTCTCTTT

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**FIGURE 1483B**

CTAACATGTTGTGGTAAATCTGTTTCAGATACTGCTCATCTGACTGTTTTGTACATGTGACAATTGCCTTAAACC  
TAGCACAGTCCTCAGAAATGAATACCGTGTTTCCACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1484**

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNYKVIFL  
QGGGCGQFSAPVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY  
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP  
SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIYEIIDNSQGFYVCPVEPQNRSK  
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRSVGGIRASLYNAV TIEDVQKLA AFMKKFLEMHQL

GCACGAGCC**AT**GGCGGACAACGAGAAACTGGACAACCAACGCGCTCAAGAATTTCAGAACAACAAAGGCCGCGGACTTG  
GAGACTATGAGAAGACAACGAAATGAAGTTGTAGTTGAATTAAGGAAGAATAAAAAGAGATGAACATCTCTTAAAG  
AGAAGGAATGTACCACATGAAGATATCTGTGAAGACTCTGATATAGATGGTGATTATAGAGTGCAAAATACCTCT  
CTAGAAGCTATTGTTCAAATGCTTCAAGTGATAACCAAGGAATTC AATTAAGTGCAGTTC AAGCTGCTAGGAAG  
CTTTTGTCCAGTGATCGAAATCCACCAATTGATGACTTAATAAAATCTGGAATATTGCCCATTTT TAGTCCATTGT  
CTTGAAAGAGATGACAATCCTTCTTTACAGTTTGAAGCTGCATGGGCTTTGACAAACATTGCATCTGGAACCTTCT  
GAACAACTCAAGCAGTAGTTCAGTCCAATGCTGTGCCACTTTTCTGAGGCTTCTCCATTACCCCATCAGAAT  
GTCTGTGAGCAAGCAGTGTGGGCATTGGGAAATATCATAGGTGATGGGCCCCAGTGTAGAGATTATGTCATAAGT  
CTTGGAGTTGTGAAACCTTTACTTTCTTTCATAAGTCCATCTATTCTTATAACATTCTTAAGAAATGTTACTTTGG  
GTTATGGTCAACTTATGTCGCCACAAAGACCCACCACCACCAATGGAAACCATT CAGGAGATTCTTCCAGCCCTT  
TGTGTTTTTAATTCATCACACAGATGTAAATATACTGGTAGACACAGTCTGGGCCCTCTCTTACCTTACTGATGCT  
GGCAATGAACAAATACAGATGGTAATAGACTCTGGAATAGTTCTCTCATTGTTCTCTGCTCAGCCACCAGGAA  
GTTAAAGTTCAGACTGCTGCACCTTAGAGCTGTGGGCAACATTGTTACTGGAAC TGATGAGCAAACACAAGTAGTT  
TTGAACTGTGATGCTCTTTACACCTTCCAGCACTCTTGACACATCCCAAAGAGAAAATTAATAAAGAAGCAGTG  
TGGTTCCTCTCCAACATCACTGCAGGAAATCAGCAGCAGGTACAGGCAGTAATTGATGCCAATCTTGTACCAATG  
ATAATACACCTTTTGATAAGGGGGATTTTGGCACTCAAAAAAGAAGCTGCTTGGGCCATAAGTAACTTAACAATT  
AGTGAAGGAAAGATCAAGTGGCTTACCTTATCCAACAAAATGTTATCCCACCTTTTTGCAACTTGCTGACTGTA  
AAAGATGCACAAGTTGTGCAAGTAGTACTCGATGGACTAAGTAATATATTAAAAATGGCTGAAGATGAGGCAGAA  
ACCATAGGCAATCTTATAGAAGAATGTGGAGGGCTGGAGAAAAATTGAACAACCTTC AAAATCATGAAAATGAAGAC  
ATCTACAAATTGGCCTATGAGATCATTGATCAGTTCTTCTCTTCAGATGATATTGATGAAGACCCTAGCCTTGTT  
CCAGAGGCAATTCAAGGCGGAACATTTGGTTTCAATTCATCTGCCAATGTACCAACAGAAGGGTTCCAGTTTT**TAG**

AAAGATGTTGTGGAAGTTAGGTACAATGCAGCACTGAGATATATATATATATATATATGTTGTGTGTGTATATATATATA  
TATATACATATATATAAAAAGGTTTTGATCCATCAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1486**

MADNEKLDNQRLKNFKNKGRDLETMRQRNEVVVELRKNKRDEHLLKRRNVPHE  
DICESDIDGDYRVQNTSLEA  
IVQNASSDNQGIQLSAVQAARKLLSSDRNPPIDDLIKSGILPILVHCLERDDNPSLQFEAAWALTNIASGTSEQT  
QAVVQSNAVPLFLRLLHSPHQNVCEQAVWALGNIIGDGPQCRDYVISLGVVKPLLSFISPSIPITFLRNVTWVMV  
NLCRHKDPPPPMETIQEILPALCVLIHHTDVNIIIVDTVWALSYLTDAGNEQIQMVIDSGIVPHLVPLLSHQEVKV  
QTAALRAVGNIVTGTDEQTQVVLNCDALSHFPALLTHPKEKINKEAVWFLSNITAGNQQQVQAVIDANLVPMIIH  
LLDKGDFGTQKEAAWAISNLTISGRKDQVAYLIQQNVIPPFENLLTVKDAQVVQVVL DGLSNILKMAEDEAETIG  
NLIEECGGLEKIEQLQNHENEDIYKLAYEIIDQFFSSDDIDEDPSLVPEAIQGGTFGFNSSANVPTEGFQF

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**FIGURE 1487A**

CTGGGTCCTGTGTGTGCCACAGGGGTGGGGTGTCCAGCGAGCGGTCTCCTCCTCCTGCTAGTGCTGCTGCGGCGT  
CCCGCGGCTCCCCGAGTCGGGCGGGAGGGGAGAGCGGGTGTGGATTGTCTTGACGGTAATTGTTGCGTTTCCA  
CGTCTCGGAGGCCTGCGCGCTGGGTTGCTCCTTCTTCGGGAGCGAGCTGTTCTCAGCGATCCCACTCCAGCCGG  
GGCTCCCCACACACACTGGGCTGCGTGCGTGTGGAGTGGGACCCGCGCACACGCGTGTCTCTGGACAGCTACGGC  
GCCGAAAGAACTAAAATTCCAGATGGCAAACTCAATGAATGGCAGAAACCCTGGTGGTTCGAGGAGGAAATCCCCG  
AAAAGTTCGAATTTTGGGTATTATTGATGCTATTTCAGGATGCAGTTGGACCCCTAAGCAAGCTGCCGCAGATCG  
CAGGACCGTGGAGAAGACTTGGAAGCTCATGGACAAAGTGGTAAGACTGTGCCAAAATCCCAAACCTCAGTTGAA  
AAATAGCCCACCATATATACTTGATATTTTGCTGATACATATCAGCATTTACGACTTATATTGAGTAAATATGA  
TGACAACCAGAACTTGCCCAACTCAGTGAGAATGAGTACTTTAAAATCTACATTGATAGCCTTATGAAAAAGTC  
AAAACGGGCAATAAGACTCTTTAAAGAAGGCAAGGAGAGAATGTATGAAGAACAGTCACAGGACAGACGAAATCT  
CACAAAACCTGTCCCTTATCTTCAGTCACATGCTGGCAGAAATCAAAGCAATCTTTCCCAATGGTCAATTCAGGG  
AGATAACTTTTCGTATCACAAAAGCAGATGCTGCTGAATTCTGGAGAAAGTTTTTTGGAGACAAAACCTATCGTACC  
ATGGAAAGTATTCAGACAGTGCCTTCATGAGGTCCACCAGATTAGCTCTAGCCTGGAAGCAATGGCTCTAAAATC  
AACAATTGATTTAACTTGCAATGATTACATTTTCAGTTTTTGAATTTGATATTTTTACCAGGCTGTTTCAGCCTTG  
GGGCTCTATTTTGCAGAAATTGGAATTTCTTAGCTGTGACACATCCAGGTTACATGGCATTCTCACATATGATGA  
AGTTAAAGCAGACTACAGAAATATAGCACCAAACCCGGAAGCTATATTTCCGGTTAAGTTGCACTCGATTGGG  
ACAGTGGGCCATTGGCTATGTGACTGGGGATGGGAATATCTTACAGACCATACTCATAACAAGCCCTTATTTCA  
AGCCCTGATTGATGGCAGCAGGGAAGGATTTTATCTTTATCCTGATGGGAGGAGTTATAATCCTGATTTAACTGG  
ATTATGTGAACCTACACCTCATGACCATATAAAAGTTACACAGGAACAATATGAATTATATTGTGAAATGGGCTC  
CACTTTTCAGCTCTGTAAGATTTGTGCAGAGAATGACAAAGATGTCAAGATTGAGCCTTGTTGGGCATTTGATGTG  
CACCTCTTGCTTACGGCATGGCAGGAGTCGGATGGTCAGGGCTGCCCTTTCTGTGCTTGTGAAATAAAAAGGAAC  
TGAGCCCATAAATCGTGGACCCCTTTGATCCAAGAGATGAAGGCTCCAGGTGTTGCAGCATCATTGACCCCTTTGG  
CATGCCGATGCTAGACTTGAGCAGCATGATGATCGTGAGGAGTCCTTGATGATGAATCGGTTGGCAAACGTCCG  
AAAGTGCCTGACAGGCAGAACTCACCAGTCACATCACCAGGATCCTCTCCCCTTGCCAGAGAAGAAAGCCACA  
GCCTGACCCACTCCAGATCCCACATCTAAGCCTGCCACCCGTGCCTCCTCGCCTGGATCTAATTTCAGAAAGGCAT  
AGTTAGATCTCCCTGTGGCAGCCCAACAGGTTTACCAAAGTCTTCTCCTTGATGGTGAGAAAACAAGATAAACC  
ACTCCCAGCACCACTCCTCCCTTAAGAGATCCTCCTCCACCGCCACCTGAAAGACCTCCACCAATCCCACCAGA  
CAATAGACTGAGTAGACACATCCATCATGTGGAAGCGTGCTTCCAGAGACCCGCCAATGCCTCTTGAAGCATG  
GTGCCCTCGGGATGTGTTTTGGGACTAATCAGCTTGTGGGATGTGACTCCTAGGGGAGGGCTCTCCAAAACCTGG  
AATCACAGCGAGTTCAAATGTCAATGGAAGGCACAGTAGAGTGGGCTCTGACCCAGTGCTTATGCGGAAACACAG  
ACGCCATGATTTGCCCTTTAGAAGGAGCTAAGGTCTTTTCCAATGGTCACCTTGGAAGTGAAGAATATGATGTTCC  
TCCCCGGCTTTCTCCTCCTCCTCCAGTTACCACCCTCCTCCCTAGCATAAAGTGTACTGGTCCGTTAGCAAATTC  
TCTTTCAGAGAAAACAAGAGACCCAGTAGAGGAAGATGATGATGAATACAAGATTCTTCATCCACCCCTGTTTC  
CCTGAATTCACAACCATCTCATTGTCATAATGTAAAACCTCCTGTTTCGGTCTGTGATAATGGTCACTGTATGCT  
GAATGGAACACATGGTCCATCTTCAGAGAAGAAATCAAACATCCCTGACTTAAGCATATATTTAAAGGGAGATGT  
TTTTGATTTCAGCCTCTGATCCCGTGCCATTACCACCTGCCAGGCTCCAACTCGGGACAATCCAAAGCATGGTTC  
TTCACCTAACAGGACGCCCTCTGATTATGATCTTCTCATCCCTCCATTAGGTGAAGATGCTTTTGATGCCCTCCC  
TCCATCTCTCCCACCTCCCCACCTCCTGCAAGGCATAGTCTCATTGAACATTCAAACCTCCTGGCTCCAGTAG  
CCGGCCATCCTCAGGACAGGATCTTTTTCTTCTTCTCCTTCAGATCCCTTTGTTGATCTAGCAAGTGGCCAAGTTCC  
TTTGCTCCTGCTAGAAGGTTACCAGGTGAAAATGTCAAAACTAACAGAACATCACAGGACTATGATCAGCTTCC  
TTCATGTTTCAGATGGTTTCACAGGCACCAGCCAGACCCCTAAACCACGACCGCGCAGGACTGCACCAGAAATTCA  
CCACAGAAAACCCCATGGGCCTGAGGCGGCATTGGAAAATGTGCGATGCAAAAATTGCAAACTCATGGGAGAGGG  
TTATGCCTTTGAAGAGGTGAAGAGAGCCTTAGAGATAGCCCAGAAATAATGTGCAAGTTGCCCGGAGCATCCTCCG  
AGAATTTGCCTTCCCTCCTCCAGTATCCCCACGTCTAAATCTATAGCCAGCCAGAACTGTAGACACCAAAATGGAA  
AGCAATCGATGTATTCCAAGAGTGTGGAATAAAGAGAACTGAGATGGAATTCAGAGAGAAGTGTCTCCTCCTC  
GTGTAGCAGCTTGAGAAGAGGCTTGGGAGTGCAGCTTCTCAAAGGAGACCGATGCTTGCTCAGGATGTCGACAGC  
TGTGGCTTCTTGTGTTTTGCTAGCCATATTTTTAAATCAGGGTTGAACTGACAAAAATAATTTAAAGACGTTTAC  
TTCCCTTGAACCTTGAACCTGTGAAATGCTTTACCTTGTTTACAATTTGGCAAAGTTGCAGTTTGTCTTGTGTTTT

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**FIGURE 1487B**

TAGTTTAGTTTTGTTTTGGTGTGTTTGATACCTGTACTGTGTTCTTCACAGACCCTTTGTAGCGTGGTCAGGTCTG  
CTGTAACATTTCCCACCAACTCTCTTGCTGTCCACATCAACAGCTAAATCATTTATTCATATGGATCTCTACCAT  
CCCCATGCCTTGCCCAGGTCCAGTTCATTTCTCTCATTACACAAGATGCTTTGAAGGTTCTGATTTTCAACTGAT  
CAAACTAATGCAAAAAAAAAAAGTATGTATTCTTCACTACTGAGTTTCTTCTTTGGAAACCATCACTATTGAGAG  
ATGGGAAAAACCTGAATGTATAAAGCATTTATTTGTCAATAAACTGCCTTTTGTAGGGGTTTTACATAAAAAA  
AAAAAA



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**FIGURE 1488**

MANSMNGRNPGGRGGNPRKGRILGIIDAIQDAVGPPKQAAADRRRTVEKTKWKLMDKVVRLCQNPKLQLKNSPPYIL  
DILPDTYQHLRLILSKYDDNQKLAQLSENEYFKIYIDSLMKKSKRAIRLFKEGKERMYEEQSQDRRNLTKLSLIF  
SHMLAEIKAIFFPNGQFQGDNFRIKADAAEFWRKFFGDKTIVPWKVFRQCLHEVHQISSSLEAMALKSTIDLTCN  
DYISVFEFDIFTRLFQPWGSILRNWNFLAVTHPGYMAFLTYDEVKARLQKYSTKPGSYIFRLSCTRLGQWAIGYV  
TGDGNILQTIIPHKNPLFQALIDGSREGFYLYPDGRSYNPDLTGLCEPTPHDHIKVTQEYELYCEMGSTFQLCKI  
CAENDKDVKIEPCGHLMCTSCLTAWQESDGQGCFFCRCEIKGTEPIIVDPFDPRDEGSRCCSIIDPFGMPMLDLD  
DDDDREESLMNRLANVRKCTDRQNSPVTSPGSSPLAQRRKPQPDPLQIPHLSPFPVPRLDLIQKGIVRSPCGS  
PTGSPKSSPCMVNRKQDKPLPAPPPPLRDPPPPPPPERPPPIPPDNRLSRHIIHVESVPSRDPPMPLEAWCPRDVF  
TNQLVGCRLLGEGSPKPGITASSNVNGRHSRVGSDPVLMRKHRRHDLPLEGAKVFSNGHLGSEEDVPPRLSPPP  
PVTLLPSIKCTGPLANSLSEKTRDPVEEDDDEYKIPSSHPVSLNSQPSHCHNVKPPVRSCDNHGMCLNGTHGPS  
SEKKSNIPLDSIYLGKDVFDASDPVPLPPARPPTRDNPKHGSSLNRTPSDYDLLIPPLGEDAFDALPPSLPPP  
PPARHSLIEHSKPPGSSSRPSSGQDLFLLPSDPFVDLASGQVPLPPARRLPGENVKTNRTSQDYDQLPSCSDGSQ  
APARPPKPRPRRTAPEIHHRKPHGPEAALENVDAKIAKLMGEGYAFEEVKRALEIAQNNVEVARSLREFAFPPP  
VSPRLNL

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**FIGURE 1489**

AATCCTCAGTCTGGTCTATATTGTTACTTGCCTGTXTCCTAGTAAGGAGTCACCCAGGCATTTAGTGAATGATA  
ATCCTAGAAGTTGAGTCTGAGTACATCAGAGTTTGGCATTATTTGCAACATCCCAGGAATGAGCTATAAGACTCC  
ATTGCTTTTCTGGACTTTAGTGACCAGCTGATCTTCCCTTGGATCCTCCAATAAAGGGGAAAAAATACTTGTCTTA  
TGTGTGTTTAGCAAGGGAGTTTCAGCCAAGTGACAGGAAAAGATTCCCTGGTCTGCATCTAAACATTAGTCAACAGA  
AGGAAAAGGCTCTTTTTCCTTGGAGATTTTCAAGTTGAAAAAGTACAGCTGCTTGGATGGAGTTTCTCTCATCAGA  
ATAGAAATATGCTAGGTGGTCTTCAAGACCTTTTGAACCTACAGATTCTAAACCTTAGAGGAAGCCAGAATATG  
TGATCATACCAGGTGAGGAAAGTTAGGAGATATTCATCTTAAGAGATATCCTATTTGGCAGTCACATGTTACACT  
TGAGCAACAATTGTCTAGGCTAGAAATATAGAACCACACAATATTTATCATCATTGGGTCAATTTCTCCCCCTCT  
ATCAAGTGAGGAGATTAAGGCTTAAAGAAAGGAAAGGACTTGCCAGCCACCACAGGGCTCATGAGGGGCTTGAAC  
CCATGTCGTGTGTCTCTACCACAGCTGACTCTCAGCTGGCTAATGGAGAAAATGTGAGGAATTACCTGTCAAATT  
AGATTGAGCTCAGAGTAAATAGATGAGCACATTTATAACTCTAAATTAGACTTTCTATCAAATGGGACCAAACAT  
ATGGAAGGGGCTGCTGTCTGCCTCAATTTAGCCAAGACTTGTCTTGTCTCAAAGCCAAGACTCAGCAGTACATG  
GATTCTGAGAAGTCCAGGGTCTGAATTGTTGTCTCTGATTACTGGAAGGACAGGTAACTGAATGTCTGTGATCA  
CTAACAGGTGATGGGCTTTGTGCCCCTCCAGAGATATTGTGGGAGACAAATTCTTTTAACAGCCTGTCTCCCG  
GCATCAGGAGTCATTGAACAATCATGGATTGTTGTGTTTGGGATTTTTTTTTTTTTTTTGGCTTTGTTTTTGGTTTT  
TGTGTGTGTGTGTGTGTGTGCTGCATGCACATGCGTCCAAGACTTACGGGTGGTTTAGGGGAAAGTGCTAGCAACAG  
TGTCAATGTCATTGTTAACTATATTTTCATATTTGAGGTCTCATTGTTTTCAAATAAACAGTGTTTTCCATGAAAA  
AAAAAAAAAAAAAAAAATTCCTGCGGCCGTCAAGG

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**FIGURE 1490**

MGFVPTPEILWETNSFNSLSRHHQESLNNHGLLCLGFFFFLALFLVFVCVCVCCMHMRPRLTGGLGESASNSVNV  
IVNYISYLRSHCFQINSVFHEKKKKKNSCGRQ

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**FIGURE 1491**

GTGGGAGGAGGCACCGGCCGCGCGGGAGGAGGTGCCGGCCGAGCACCGCAGACAGCGCCGGGAAGATGAGCA  
CGGAAGGTGGTGGCCGTCGCTGCCAGGCACAAGTGTCCCGCCGCATCTCCTTCAGCGCGAGCCACCGATTGTACA  
GTAAATTTCTAAGTGATGAAGAAACTTGAAACTGTTTGGGAAATGCAACAATCCAAATGGCCATGGGCACAATT  
ATAAAGTTGTGGTGACAGTACATGGAGAGATTGACCCCTGCTACGGGAATGGTTATGAATCTGGCTGATCTCAAAA  
AATATATGGAGGAGGCGATTATGCAGCCCCCTTGATCATAAGAATCTGGATATGGATGTGCCATACTTTGCAGATG  
TGGTGAGCACGACTGAAAATGTAGCTGTTTATATCTGGGACAACCTCCAGAAAGTTCTTCCTGTAGGAGTTCTTT  
ATAAAGTAAAAGTATACGAAACTGACAATAATATTGTGGTTTATAAAGGAGAATAGCTATTGGGGTTAGCATTGC  
ACAAAGCCCAGTTTCTTTCTGTGTTTGAAAAAGATTTTGATCCCCTTGGAATATTAAGAGGTCAACACGTGATTG  
TTGTACGTACACATTGTGCTCTGGAGTGCCTATTTATTGAAATCATTGTAAGACCTGTTATAAATTTAAGTCTAT  
TTAAAACTAACTTGTAATATACATCCTGAAAATCATTTAGAGAGTCTTTTATTTATAAATTAAAAATCACTTCA  
TTTTACAAAATGTTTTGGTGTGGGATTATTTGAAAGCAAAAGAAATCTAATTTGTTTTCTCCATTACCTCATT  
TTAGTATTAATTTTTACTTGGTATAATATACATGGTTAAATGCTTATGTGACTTCGAGTAGGTGAATCTTAAAG  
AAATAAAATTCAAGTGACCAC

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**FIGURE 1492**

MSTEGGGRRCQAQVSRRISFSASHRLYSKFLSDEENLKLFGKCNNPNGHGHNYKVVVTVHGEIDPATGMVMNLAD  
LKKYMEEAIMQPLDHKNLDMDVPYFADVSTTENVAVYIWDNLQKVLPGVLYKVKVYETDNNIVVYKGE

**FIGURE 1493**

[illegible]

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**FIGURE 1494**

MADQAPFDTDVNTLTRFVMEEGRKARGTGELTQLLSLCTAVKAISSAVRKAGIAHLYGIAGSTNVTGDQVKKLD  
VLSNDLVMNMLKSSFATCVLVSEEDKHAIIVEPEKRGKYVVCFDPLDGSSNIDCLVSVGTIFGIYRKKSTDEPSE  
KDALQPGRNLVAAGYALYGSATMLVLAMDCGVNCFMLDPAIGEFILVDKDVKIKKKGKIYSLNEGYARDFDPAVT  
EYIQRKKFPPDNSAPYGARYVGSMVADVHRTL VYGGIFLYPANKKSPNGKLRLLYECNPMAYVMEKAGGMATTGK  
EAVLDVIPTDIHQRAPVILGSPDDVLEFLKVYEKHSAQ

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**FIGURE 1495**

GGCACGAGGGAGCA**ATGG**AGCTTACCATCTTTATCCTGAGACTGGCCATTTACATCCTGACATTTCCCTTGTACC  
TGCTGAACTTTCTGGGCTTGTGGAGCTGGATATGCAAAAAATGGTTCCCCTACTTCTTGGTGAGGTTCACTGTGA  
TATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGCGGGCCCCCTCCGGGA  
AACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGGCCA**ACTTCAAGTTCTACCCACCTGGGTGCAGGGTGACCT**  
GTATTGACCCCAACCCCA**ACTTTGAGAAGTTTTTGATCAAGAGCATTGCAGAGAACCGACACCTGCAGTTTGAGC**  
GCTTTGTGGTAGCTGCCGGGAGAACATGCACCAGGTGGCTGATGGCTCTGTGGATGTGGTGGTCTGCACCCTGG  
TGCTGTGCTCTGTGAAGAACCAGGAGCGGATTCTCCGCGAGGTGTGCAGAGTGCTGAGACCGGGAGGGGCTTTCT  
ATTT**CATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAATTACTTCTGGCAACAAGTCTGGATCCTGCCTGGC**  
ACCTTCTGTTT**GATGGGTGCAACCTGACCAGAGAGAGCTGGAAGGCCCTGGAGCGGGCCAGCTTCTCTAAGCTGA**  
AGCTGCAGCACATCCAGGCCCCACTGTCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGAAA**TAGT**  
GTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAGCTTCAGTTTTACATTTAAAATGCTAAGTGGGA  
GAAGAGAAACCTTTTTTTTTTGGGGGGCGGTTTTTTTTTGGTTTTGTGTTGGTTTTTTTTTTTTTTTGGCGGGAAGAA  
AGAGTTTTGCTCTTGTGGCCAGGCTGGAGTGCAATGGCGTGGTCTCCGCTCACTGCAACCTCCACCTCGCGGGT  
TTAGGCGATTCTTCTGCCTCAGCCTCCCTAGTAGCTGGGATTACAGGTGCCACCAACCATGCCAGCTAATTTGT  
ATTTTTTAGTTGAGACAGGGTTTCACTACGTTGGCCAGGCTGGTCTTGA**ACTCCTGATCTCAGGCAATCCACCCAC**  
CTCAGCCTCCCAAAGTGCTGGGATGACAGGCGTGAGCAACCGCACCCAGCTTAAGGTTTTTTTTGTTTTGTTTTGA  
GACGGAGTTTTCGCTCTTGTGGCCAGGCTGGAGTGCAATGCTGTGATCTCAGCTTACCACAACCTCCACCTCCC  
GGGTTCAGGTGATTACCTGCCTCAGCCTCCTGAGTGGCTGGTATTACAGGCATGCGTCACCACGCCGGCTAATT  
TTGTACTTTTAGTAGAGATGGTGTTCCTCCACGTTGGTCAGTCTGGTCTCAAATTCCTGACCTCAGGTGATCTGC  
CTGCCTCGGCCTCCCAAAGTGCTGTGATTACAGACGTCAGCCACCATGCCTGGCCTGAAACCTTTTTTTAGGTAAA  
GTTGAATTCCATCCTTAAAAGTTTCTGTTATATCCTATTTAGCCATTTTCTATTGTCTCCCAAAGAATTCACATC  
AAAAAAACAGCTTTGAACTCCCCCTTCAAAGGAAACAGTCGACTTTCATAATTAGCATCTACCATTTATCCCCAAA  
TCTTATTTTATTCACTTGACTTGAAATTTTTTCCAATTGCTTTTTTTTTTTTTTTTTTTAAGGTTAAGAGCAGAGG  
TTTACTAGGCCAAAGAAAGAGAATAGCTCTCTGTTGCAGAGAGGGGTCCTGGAGAAATGGGTTACCCAGTTGTC  
TTATTTAAATGTTTACCCATCAGATTTTAATTTTATCTTCTCTTTGAGAGCTTGGTAATAAGAAGCACTTAAATC  
ACTCCAAAGAAGACTTTTAAAAGGGAGCAGTGAAAAGGTCTTAATAATTTATTGATTGAATTAAGAAATACTAGC  
TAATTAAGAATCTGAGTCTAAACAGCACAGATTTTTTCTTTCTGCTTTTAAATTGTGTTTTAAAAAAGAGACAG  
GGGGCTGGGCGTGGTGGCTCACGCCTGTAATCCTAGCACTTTGGGAGGCCGAGGCGGGTGGATCACGAGGTAGGA  
GTTAAAGACCAGCCTGGCCAACATGGCAAAACCTACTAAAGATACAAAAAAAAAAAAAAAAATTGGCCAGGCGTGG  
TGGTGGGTGCCTGTAATCCAGGTACTTGGAAGGCTGAGGCAGGAGAATCTCTTGAACCCAGAAGGCGAAGGTTG  
CAGTGAACCGAGATCATGCCATTGTACTCTAGCCTGGGTGACAAGAGCAAGACTCCGTCTCAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1496**

MELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFPYFLVRFTVIYNEQMASKKRELF SNLQEFAGPSGKLSLL  
EVGCGTGANFKFYPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMHQVADGSVDVVCTLVLC SV  
KNQERILREVCRLRPGGAFYFMEHVAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASF SKLKLQHI  
QAPLSWELVRPHIYGYAVK

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**FIGURE 1497**

AAGCTTGCACGAGGCCGACAGCCTCAGCCGGGCTGCGACTGTCTTGGCAACTGTGTTGCTCTTGTCTTCGGCAG  
CGTGGCCGCTAGTCATATCGAGGATCAAGCAGAACAATTCTTTAGAAGTGGCCATACAAACAACCTGGGCTGTTCT  
GGTGTGTACATCCCGATTCTGGTTTAATTATCGACATGTTGCAAATACCCTTTCTGTTTATAGAAGTGTCAAGAG  
GCTAGGTATTCTGACAGTCACATTGTCTTAATGCTTGACAGATGATATGGCCTGTAATCCTAGAAAATCCCAAACC  
AGCTACAGTGTTTTAGTCCACAAGAATATGGAACATAAATGTGTATGGAGATGATGTGGAAGTGGATTATAGAAGTTA  
TGAGGTAACGTGTGGAGAATTTTTTACGGGTATTAACTGGGAGGATCCCACCTAGTACTCCTCGGTCAAAACGTCT  
TCTTTCTGATGACAGAAGCAATATTCTAATTTATATGACAGGGCATGGTGGAAATGGTTTCTTAAAATTTCAAGA  
TTCTGAAGAAATTACCAACATAGAAGCTCGCGGATGCTTTTGAACAAATGTGGCAGAAAAGACGCTACAATGAGCT  
ACTGTTTATTATTGATACTTGCCAAGGAGCATCCATGTATGAACGATTTTATTCTCCTAACATAATGGCTCTAGC  
TAGTAGTCAAGTGGGAGAAGATTCCTCTCGCATCAACCTGATCCTGCAATTGGAGTCCATCTTATGGATAGATA  
CACATTTTATGTCTTGGAATTTTTGGAAGAAATTAACCCAGCTAGCCAACTAATATGAATGACCTTTTTTCAGGT  
ATGTCCCAAAAGTCTGTGTGTGTCTACTCCTGGACATCGCACTGATCTTTTTTCAGAGGGATCCTAAAAATGTACT  
GATAACTGATTTCTTTGGAAGTGTACGGAAAGTGGAAATTACAACAGAGACTATTAAATTGCAACAGGATTTCAGA  
AATCATGGAAAGCAGCTATAAGGAAGACCAGATGGATGAGAACTAATGGAACCTCTGAAATATGCTGAACAACCT  
TCCTGTAGCTCAGATAATACACCAGAAACCGAAGCTGAAAGACTGGCATCCTCCTGGGGGCTTTATTCTGGGATT  
ATGGGCACCTTATTATCATGGTTTTCTTCAAACTTATGGAATTAAGCATATGAAGTTCATTTTTT**TAG**ACTTGATG  
ATGAATGAAGAATGCATGGAGGACTGCAAACTTGGATAATAATTTATGTCATTATATATTTTTAAAAATGTGTTT  
CTCTTGATGAATTGAAATAAGTATAAGGAACTAAATTTGAATCAACTATTAATTTTATAACTTAAAGAAAAA  
TAATTGTTAATGCAACTGCTTAATGGCACTAAATATATTCCAGTTTTGTATTTTGTGTATTATAAAAGCGAATGA  
GACAGAGATCAGAATACATTGACTGTTTTTGAATAAGTAATTTCCCTTATCCCTTTTTCATTTGGAAAAGAAA  
CAATTGTGAAGACATTAAATTCTCACTAACAGAA

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**FIGURE 1498**

SLHEADSLSRAATV LATV LLLSFGSVAASHIEDQAEQFFRSGHTNNWAVLVCTSRFWFNRYRHVANTLSVYRSVKR  
LGIPDSHIVLMLADDMACNPRNPKPATVFSHKNMELNVYGDDVEVDYRSYEVTVENFLRVLTGRIPPSTPRSKRL  
LSDDRSNILIYMTGHGGNGFLKFQDSEEITNIELADAFEQMWQKRRYNELLFIIDTCQGASMYERFYSPNIMALA  
SSQVGEDSLSHQPDPAIGVHLM DRYTFYVLEFLEEINPASQTNMNDLFQVCPKSLCVSTPGHRTDLFQRDPKNVL  
ITDFFGSVRKVEITTTETIKLQQDSEIMESSYKEDQMDEKLMEPLKYAEQLPVAQIIHQKPKLKDWHPPGGFILGL  
WALIIMVFFKTYGIKHMKFIF

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**FIGURE 1499A**

CCTGGGTCTCTCGGCGCCAGAGCCGCTCTCCGCATCCCAGGACAGCGGTGCGGGCCCTCGGCGGGGGCGCCCACT  
CCGCAGCAGCCAGCGAGCCAGCTGCCCCGTATGACCGCGCCGGGGCGCCGCCGGGCGCTGCCCTCCCACGACATGG  
CTGGGCTCCCTGCTGTTGTTGGTCTGTCTCCTGGCGAGCAGGAGTATCACCGAGGAGGTGTCGGAGTACTGTAGC  
CACATGATTGGGAGTGGACACCTGCAGTCTCTGCAGCGGCTGATTGACAGTCAGATGGAGACCTCGTGCCAAATT  
ACATTTGAGTTTGTAGACCAGGAACAGTTGAAAGATCCAGTGTGCTACCTTAAGAAGGCATTTCTCCTGGTACAA  
GACATAATGGAGGACACCATGCGCTTCAGAGATAACACCGCCAATCCCATCGCCATTGTGCAGCTGCAGGAACCTC  
TCTTTGAGGCTGAAGAGCTGCTTCACCAAGGATTATGAAGAGCATGACAAGGCCTGCGTCCGAACCTTTCTATGAG  
ACACCTCTCCAGTTGCTGGAGAAGGTCAAGAATGTCTTTAATGAAACAAAGAATCTCCTTGACAAGGACTGGAAT  
ATTTTCAGCAAGAACTGCAACAACAGCTTTTGTGAATGCTCCAGCCAAGATGTGGTGACCAAGCCTGATTGCAAC  
TGCCTGTACCCCAAAGCCATCCCTAGCAGTGACCCGGCCTCTGTCTCCCTCATCAGCCCCTCGCCCCCTCCATG  
GCCCCGTGTGGCTGGCTTGACCTGGGAGGACTCTGAGGGAAGTGAAGGAGCTCCCTCTTGCTGGTGAGCAGCC  
CTGCACACAGTGGATCCAGGCAGTGCCAAGCAGCGGCCACCCAGGAGCACCTGCCAGAGCTTTGAGCCGCCAGAG  
ACCCAGTTGTCAAGGACAGCACCATCGGTGGCTCACCACAGCCTCGCCCCCTCTGTGCGGGCCCTTCAACCCGGG  
ATGGAGGATATTCTTGACTCTGCAATGGGCACTAATTGGGTCCCAGAAGAAGCCTCTGGAGAGGCCAGTGAGATT  
CCCGTACCCCAAGGGACAGAGCTTTCCCCCTCAGGCCAGGAGGGGGCAGCATGCAGACAGAGCCCGCCAGACCC  
AGCAACTTCTCTCAGCATCTTCTCCACTCCCTGCATCAGCAAAGGGCCAACAGCCGGCAGATGTAAGTGTACAA  
GCCTTGCCAGGGTGGGCCCCGTGATGCCCACTGGCCAGGACTGGAATCACACCCCCCAGAAGACAGACCATCCA  
TCTGCCCTGCTCAGAGACCCCCCGGAGCCAGGCTCTCCAGGATCTCATCACTGCGCCCCCAGGCCCTCAGCAAC  
CCCTCCACCCTCTCTGCTCAGCCACAGCTTTCCAGAAGCCACTCCTCGGGCAGCGTGCTGCCCTTGGGGAGCTG  
GAGGGCAGGAGGAGCACAGGGATCGGACGAGCCCCGAGAGCCAGAAGCAGCACACAGCAAGTGAAGGGGCAGCC  
AGGCCCCGTGCCCGTTTTAACTCCGTTCTTTGACTGACACAGGCCATGAGAGGCAGTCCGAGGGATCCTCCAGC  
CCGCAGCTCCAGGAGTCTGTCTTCCACCTGCTGGTGCCAGTGTCATCCTGGTCTTGCTGGCTGTGCGAGGCCTC  
TTGTTCTACAGGTGGAGGCGGCGGAGCCATCAAGAGCCTCAGAGAGCGGATTCTCCCTTGAGCAACCAGAGGGC  
AGCCCCCTGACTCAGGATGACAGACAGGTGGAAGTGGCAGTGTAGAGGGAATTCTAAGCTGGACGCACAGAACAG  
TCTCTTCTGTTGGGAGGAGACATTATGGGGCGTCCACCACCACCCCTCCCTGGCCATCCTCCTGGAATGTGGTCTGC  
CCTCCACCAGAGCTCCTGCCTGCCAGGACTGGACCAGAGCAGCCAGGCTGGGGCCCCCTCTGTCTCAACCCGAGA  
CCCTTGACTGAATGAGAGAGGCCAGAGGATGCTCCCCATGCTGCCACTATTTATTGTGAGCCCTGGAGGCTCCCA  
TGTGCTTGAGGAAGGCTGGTGAGCCCGGCTCAGGACCCTCTTCCCTCAGGGGCTGCAGCCTCCTCTCACTCCCTT  
CCATGCCGGAACCCAGGCCAGGGACCCACCGCCTGTGGTTTGTGGGAAAGCAGGGTGCACGCTGAGGAGTGAAA  
CAACCCTGCACCCAGAGGGCCTGCCTGGTGCCAAGGTATCCAGCCTGGACAGGCATGGACCTGTCTCCAGACAG  
AGGAGCCTGAAGTTCTGTGGGGCGGGACAGCCTCGGCCTGATTTCCCGTAAAGGTGTGCAGCCTGAGAGACGGGAA  
GAGGAGCCTCTGCACCTGCTGGTCTGCACTGACAGCCTGAAGGGTCTACACCCTCGGCTCACCTAAGTCCCTGT  
GCTGGTTGCCAGGCCAGAGGGGAGGCCAGCCCTGCCCTCAGGACCTGCCTGACCTGCCAGTGATGCCAAGAGGG  
GGATCAAGCACTGGCCTCTGCCCCCTCCTCCTTCCAGCACCTGCCAGAGCTTCTCCAGCAGGCCAAGCAGAGGCTC  
CCCTCATGAAGGAAGCCATTGCACTGTGAACACTGTACCTGCCTGCTGAACAGCCTCCCCCGTCCATCCATGAG  
CCAGCATCCGCTCCGTCCTCCACTCTCCAGCCTCTCCCCAGCCTCCTGCACTGAGCTGGCCTCACCAGTCGACTGA  
GGGAGCCCCCTCAGCCCTGACCTTCTCCTGACCTGGCCTTTGACTCCCCGGAGTGAGTGGGGTGGGAGAACCTCC  
TGGGCGGCCAGCCAGAGCCGCTCTTTAGGCTGTGTTCTTCGCCAGGTTTCTGCATCTTCCACTTTGACATTCCC  
AAGAGGGAAGGGACTAGTGGGAGAGAGCAAGGGAGGGGAGGGCACAGACAGAGAGCCTACAGGGCGAGCTCTGAC  
TGAAGATGGGCCTTTGAAATATAGGTATGCACCTGAGGTTGGGGGAGGGTCTGCACTCCCCAAACCCAGCGCAGT  
GTCCTTTCCCTGCTGCCGACAGGAACCTGGGGCTGAGCAGGTTATCCCTGTCAGGAGCCCTGGACTGGGCTGCAT  
CTCAGCCCCACCTGCATGGTATCCAGCTCCCATCCACTTCTCACCCCTTCTTTCCCTCCTGACCTTGCTCAGCAGTG  
ATGACCTCCAACCTCTACCCACCCCCCTCTACCATCACCTCTAACCAGGCAAGCCAGGGTGGGAGAGCAATCAGGA  
GAGCCAGGCCTCAGCTTCCAATGCCTGGAGGGCCTCCACTTTGTGGCCAGCCTGTGGTGCTGGCTCTGAGGCCTA  
GGCAACGAGCGACAGGGCTGCCAGTTGCCCCCTGGGTTCCTTTGTGCTGCTGTGTGCCTCCTCTCCTGCCGCCCTT  
TGTCTCCGCTAAGAGACCCTGCCCTACCTGGCCGCTGGGCCCGTGACTTTCCCTTCCCTGCCAGGAAAGTGAG  
GGTCGGCTGGCCCCACCTTCCCTGTCTGATGCCGACAGCTTAGGGAAGGGCACTGAACTTGCAATATGGGGCTTA  
GCCTTCTAGTCACAGCCTCTATATTTGATGCTAGAAAACACATATTTTTAAATGGAAGAAAAATAAAAAGGCATT

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**FIGURE 1499B**

CCCCCTTCATCCCCCTACCTTAAACATATAATATTTTAAAGGTCAAAAAAGCAATCCAACCCACTGCAGAAGCTC  
TTTTTGAGCACTTGGTGGCATCAGAGCAGGAGGAGCCCCAGAGCCACCTCTGGTGTCCCCCAGGCTACCTGCTCA  
GGAACCCCTTCTGTTCTCTGAGAACTCAACAGAGGACATTGGCTCACGCACTGTGAGATTTTGTTTTTATACTTG  
CAACTGGTGAATTATTTTTTTATAAAGTCATTTAAATATCTATTTAAAAGATAGGAAGCTGCTTATATATTTAATA  
ATAAAAGAAGTGCACAAGCTGCCGTTGACGTAGCTCGAG

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**FIGURE 1500**

MTAPGAAGRCPPTTWLGSLLLLVCLLASRSITEEVSEYCSHMIGSGHLQSLQRLIDSQMETSCQITFEFVDQEQ  
KDPVCYLKKAFLLVQDIMEDTMRFRDNTANPIAIVQLQELSLRLKSCFTKDYEEDHKACVRTFFYETPLQLEKVK  
NVFNETKNLLDKDWNIFSKNCNNSFAECSSQDVVTKPDCNCLYPKAIPSSDPASVSPHQPLAPSMAPVAGLTWED  
SEGTEGSSLLPGEQPLHTVDPGSAKQRPPRSTCQSFEPPEPTPVVKDSTIGGSPQPRPSVGAFNPGMEDILDSAMG  
TNWVPEEASGEASEIPVPQGTELSPSRPGGGSMQTEPARPSNFLSASSPLPASAKGQQPADVTATALPRVGPVMP  
TGQDWNHTPQKTDHPSALLRDPPEPGSPRISSLRPQALSNPSTLSAQPLSRSHSSGSVLPLGELEGRRSTRDRT  
SPAEEPAAPASEGAARPLPRFNSVPLTDTGHERQSEGSSSPQLQESVFHLLVPSVILVLLAVGGLLFYRWRRRSH  
QEPQRADSPLEQPEGSPLTQDDRQVELPV

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**FIGURE 1501A**

GGCACGAGGCTGCGCCTCGGGGGTGGCGTCCAGGCTCGGAGCGCGGCACGGAGACGGCGGCAGCGCTGGACTAG  
GTGGCAGGCCCTGCATC**ATG**GAAACTCTTTCTAATGCAAGTGGTACTTTTGCCATACGCCCTTTTAAAGATACTGT  
GTCAAGATAACCCTTCGCACAACGTGTTCTGTTCTCCTGTGAGCATCTCCTCTGCCCTGGCCATGGTTCTCCTAG  
GGGCAAAGGGAAACACCGCAACCCAGATGGCCCAGGCACTGTCTTTAAACACAGAGGAAGACATTTCATCGGGCTT  
TCCAGTTCGCTTCTCACTGAAGTGAACAAGGCTGGCACACAGTACCTGCTGAGAACGGCCAACAGGCTCTTTGGAG  
AGAAAACCTTGTCTAGTTCCCTCTCAACGTTTAAGGAATCCTGTCTTCAATTCTACCATGCTGAGCTGAAGGAGCTTT  
CCTTTATCAGAGCTGCAGAAGAGTCCAGGAAACACATCAACACCTGGGTCTCAAAAAGACCGAAGGTAAAATTG  
AAGAGTTGTTGCCGGGTAGCTCAATTGATGCAGAAACCAGGCTGGTTCTTGTCAATGCCATCTACTTCAAAGGAA  
AGTGGAATGAACCGTTTGACGAAACATACACAAGGGAAATGCCCTTTAAAATAAACCAGGAGGAGCAAAGGCCAG  
TGCAGATGATGTATCAGGAGGCCACGTTTAAGCTCGCCACGTGGGCGAGGTGCGCGCGCAGCTGCTGGAGCTGC  
CCTACGCCAGGAAGGAGCTGAGCCTGCTGGTGTCTGCTGCCTGACGACGGCGTGGAGCTCAGCACGGTGGAAAAAA  
GTCTCACTTTTGAGAACTCACAGCCTGGACCAAGCCAGACTGTATGAAGAGTACTGAGGTTGAAGTTCTCCTTC  
CAAAATTTAACTACAAGAGGATTATGACATGGAATCTGTGCTTCGGCATTGGGAATTGTTGATGCCTTCCAAC  
AGGGCAAGGCTGACTTGTGCGCAATGTGAGCGGAGAGAGACCTGTGTCTGTCCAAGTTCTGTGCACAAGAGTTTGTG  
TGGAGGTGAATGAAGAAGGCACCGAGGCAGCGGCAGCGTGCAGCTGCTTGTAGTTGCAGAGTGTGTCATGGAAT  
CTGGCCCCAGGTTCTGTGCTGACCACCCTTTCTTTTCTTCATCAGGCACAACAGAGCCAACAGCATTCTGTTCT  
GTGGCAGGTTCTCATCGCCA**TAA**AGGTTGCACTTACCGTGCCTCGGCCATTTCCCTCTTCTGTGTCCCCAGAT  
CCCCACTACAGCTCCAAGAGGATGGGCCTAGAAAGCCAAGTGCAAAGATGAGGGCAGATTCTTACCTGTCTGCC  
CTCATGATTTGCCAGCATGAATTCATGATGCTCCACACTCGCTTATGTACTTAATCAGAATCTTGAGAAAAATAG  
ACCATAATGATTCCCTGTTGTATTAAAATTGCAGTCCAAATCCCATAGGATGGCAAGCAAAGTTCTTCTAGAATT  
CCACATGCAATTCACTCTGGCGACCCTGTGCTTTTCTGACACTGCGAATACATTCCCTTAACCCGCTGCCTCAGTG  
GTAATAAATGGTGCTAGATATTGCTACTATTTTATAGATTTCTGGTGCTTAGCCTTATAAAAAAGGTTGTAAAA  
TGTACATTTATATTTTATCTTTTTTTTTTTTTTTTTTCTGAGACGCAGTCTGGCTCTCTGTGCGCCAGGCTGGAG  
TGCAGTGGCTCGATCTCTGCTCACTGCAAGCTCCGCTCCCGGGTTACGCCATTCTCCTGCCTCAGCCTCCCGA  
GTAGCTGGGACTACAGGCGCCCGCCACCACGCCCCGCTAATTTTTTGTATTTTGTAGTAGAGACGGGGTTTACCG  
TGTTAGCCAGGATGGTGTGATCTCCTGACCTCGTGATCCACCCGCCTCGGCCTCCCAAAGTGCTGGGATTACAG  
GCTTGAGCCACCGCGCCCGCTATATTTTATCTTTTATCTTTTCTTTGACATTTACCAATCACCAAGCATGCAC  
CAAACACTGCTTTAGGCCTGCGGACACAAAGGGGACAGAGCCATCCTCCTTTGACACCTGGTCTTCAGTTCTGT  
GCCCCACGTATATAGTTTTGACAATGACCAGGTTGGACTGTTTAATGTCTTTCACTTACCACGTAATCCTCTTG  
TAGGGATCACATCTTTCTTTATGATATTGTATTTCTCTACCTCTAACAGTAAAAATTCCATTCAACCCTTAAAGC  
TCACTTCAAATCTTCTTTGAGAAGTTTTCTTTCTCGCAACCAGATGTACATATTTGAACTCTCTTTGTACT  
TGGAGGGCACTTCTTTCGTGGTAGTTCTTTTATTTTATTAATCTCTGTATCCTTAGATAGTCTCCAACAACCA  
AAGGTTGGGACTCTGTCTTACATATCTGGGTGCCCCCTCATAGTGCAGTAATAAGTAAGTTGATTATATACGAGCT  
ATGTAACCTATATTTTAAATGGTTGGATATCACTGAGTTTTTTTTTTTAAAGATTTTTTTATTGAGGTAAACTT  
CACATAACATAAAATTAACATTTTAAAGTGAGAAGTTCACTGCCACTTAGTATTGTTAACAATGTTGCATAACC  
ACCACCTTTATTTAAAGTTCCAAAAAAATGTTCTCCTCTAAAAGGAAACCCCATCCCATTAAGCAGATACTCTC  
CATTCTTCTCTCCTCCAGCCCCAGCAACCACCAATCTGCTTTCTGTCTCTATGGTTTTATCTATTCTTGCTAT  
TTTATATAAATCGAATTGTATGAGACCTTTTGTGTCTGGCTTCTTCACTTAGTACAAGTTTTTGAGATTTATTT  
ACATAGTAGCATGTATCAACACTTCATTTTATGGCCAAATAAAATTTGATTATGTGTTTATAGACAATTTATT  
TATCCACTCATTCAATTGATGGACTTTGGGTTGTTTCTGACTTTTGGCTATTGGGAATAGTGCTGCTATGAATGTT  
TGTGTACCTGTATTTGTTTGAATGCCTATTTTGCACTCTCTTGGGTATATATCTAGGAGTGGAAGTGTGGGTCA  
TATGTTAATTCTATGTTTAGCTTTTTGAGGAACAGACAAACTGTTTTCCACAGCAGTTGAACCATTCCACATTCC  
CACCAGCAATGTATGAGAATTCCAATTTCTGTCCACTTCCTCACCAACACTTATTATTTTCTTTTCTTTTTTT  
AAAAAAATAAGTTATGGCCATCTTAGTGGGTGTGAAGTGGTATCTCATTTGTGTTTTTTATTGCAATTTCTATG  
TAATGAGCTAGAACTAAAGTACAACTAGATGGGACATCCAGTCCCTTTGATAGATAATGCTGAGTAAAAAATG  
AGATGAAAGACATTTGTTTGTGTTTGTAGAACATGAGTGACAGTTGTGTTAAAGCTTTAGAGGAGGAATGAAAACA  
AAGTGAAGTACACTTAGAAAAGGGCCAAGTGGACATCTTGGATGTCAAGTGCCTAGTTCAGTATCTTTTTTTTTT  
TTTTTTTTTTTTTTGAGACAGTGCCTCACTCTGTACCCAGGCTGGAGTGTAGTGGCATGATCTGGGCTCACTGC

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**FIGURE 1501B**

AACCTCCTCCTCCTGGATTCAAGCAATTCTCTTGCTTCAGCCTCCCAAGTAGCTGAGACTACAAGCACCCACCAC  
CACACCCGGCTAATTTTGTATTTTTCAGTAGAGACGGGGTTTCGCCACATTGGCCGTGTTGGTCTTGAACTCCTG  
GCCTCAAGCAATCCGCCTACCTCAGCCTCCCAAAGTGCTAGGATTACAGGCATAAGCCACTGAGCCCAGCCCTAG  
TTCAGTATCTTTTATGTAAATTATAAACATCTGCAACATTATGTATCATATGCAGATACTTATTGCATTTCTTTT  
ATTAGTGGTGAAAGTGTTCTATGCATTTATTGGCTCTTGAATTCCTCATCTATGAATTGTCATTCACACACCTA  
CTTTTCTGCTTCGTTTTTACATATGTCTTGCCTATTAAAGATATTATCCCTCTGTTTTATATTTTCTCTCATT  
TTGTATTGCCTTTTAAATTTTGTATGATGTTTCATTAATAAACAGTGTTTTGTTTTCTCTATAAAAAAAAAA  
AAAAA



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**FIGURE 1502**

METLSNASGTFAIRLLKILCQDNPSHNVFCSPVSISSALAMVLLGAKGNTATQMAQALSLNTEEDIHRAFQSLLT  
EVNKAGTQYLLRTANRLFGEKTCQFLSTFKESCLQFYHAELKELSFIRAAEESRKHINTWVSKKTEGKIEELLPG  
SSIDAETRLVLVNAIYFKGKWNEPFDETYTREMPFKINQEEQRPVQMMYQEATFKLAHVGEVRAQLLELPYARKE  
LSLLVLLPDDGVELSTVEKSLTFEKLTAWKPDCKMSTEVEVLLPKFKLQEDYDMESVLRHLGIVDAFQQGKADL  
SAMSAERDLCLSKFVHKSFVEVNEEGTEAAAASSCFVVAECCMESGPRFCADHPFLFFIRHNRANSILFCGRFSS  
P

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**FIGURE 1503A**

GTAGCTGCTTTGCAGGTACATCATGTGACAGTGGAAATTATAGAAGATGTGAAGAAAAACAACACACTCCAACAC  
TAAAAGCATGATGTAGCTGCTTTGCAGGTAAAAGAAGCAGCTACATCATGCTTTTAGTGTTGGAGTGTGTGTTGT  
TTTCTGTGGCTCAGGGGTATTTTAGAATGGACTCTTCTGCAACCCAGTTTTCACATAGAGACTCATGAGAACACAT  
CAGGACTTTGGTCAATATGGTACCGCAACCATTGACCGTAGTGTTGATTAAATGATGTGTTTCTTTCCAAGG  
AGACCAAGCACATGTTAAAGATTCTGAATTTCACTGGCCCTTTATTTCTACCTCCAGGCTGTTGGAATATATTTT  
CTTTGAAACTTGCTGTTAAAGACATTGCCATAAATCTATTACCAATGTATTTTTGACTACAAACATAGGTGCCA  
TTTTTGCAATACCTCTACAGATTTATTCAGCACCAACCAAGGAAGGGAGTCTGGGTTTTGAAGTGATAGCACATT  
GTGGCATGCATTATTTTCATGGGAAAATCAAAAGCAGGAAATCCTAATTGGAATGGGAGCCTTTCTCTGGATCAAT  
CTACCTGGAATGTGGATTCTGAACTTGCAAATAAATTGTATGAAAGATGGAAGAAATATAAAATGGTGACGTCT  
GCAAGAGGAATGTTTTGGGAACAACCTCGATTGCTCACTTGAAGAAATCCAAGGAGTCAGAGTCCTTTGTTTTCT  
TTTTGCCTCGTTTGATCGCAGAGCCTGGCCTCATGTTAAACTTCAGCGCAACTGCCCTTAGGAGCAGGATGATCA  
AGTACTTTGTGGTGCAGAACCCGTCCTCTTGGCCGGTCTCCTTGCACTCCTGCCTCTCTCCTGTACCCTAAAC  
CCGAAGCCCTAGTGCACCTGCTCCACAGATGGTTTGGCACTGATATGCAGATGATTAATTTACAACTGGTGAAT  
TCCAGCTCACCGAAGCTTGCCCTTACCTGGGTACGCATTCTGAGGAATCCAGGTTTGGCATCCTCCACTTACATC  
TGCAGCCTTTGGAAATGAAAAGGGTTGGCGTAGTTTTACACCTGCTGACTATGGAAAAGTTACCTCACTCATA  
TAATCCGGAATAACTTGACTGTTATTGACATGATTGGCGTGGGAAGGATTTGGAGCAAGAGAGTTATTTAAAGTGG  
GTGGAAGACTTCTGGTGCAGGAGGCTCACTCCGATTTAAGGTGCCGAGTCCACGCTGATGGACTGCCGTAGAC  
AACTGAAAGACAGTAAGCAAATTTTATCTATTACAAAGAACTTTAAAGTTGAGAATATTGGACCTCTTCCTATAA  
CTGTTTCGTCTCTGAAAATTAATGGGTATAACTGCCAAGGTTATGGATTGAGGTGCTGGATTGTCATCAGTTTT  
CCCTGGACCCAAACACATCCCGCATATCAGCATTGTGTTCACTCCAGACTTTACCTCCTCCTGGGTAATTCGGG  
ACCTAAGTCTTGTAACCGCAGCGGACCTAGAATTTGCTTCACTCTCAATGTGACTCTCCCTCATCACCTGTTGC  
CCTTGTTGTCAGACGTGGTTCCAGGACCCAGCTGGGAGGAGTCATTTTGGAGGCTCACGGTCTTCTTTGTCAGTT  
TGTCCTGTTGGGTGTGATTTTAATAGCCTTCCAACAAGCACAGTACATTCTCATGGAATTCATGAAAACAAGAC  
AGAGGCAAAATGCTAGCTCCTCTTCACAGCAAAACAATGGTCCTATGGATGTAATCAGCCCCCATTTCTTACAAAA  
GCAATTGCAAGAACTTTCTCGATACATATGGCCCCCTCTGATAAAGGCAGGGGGAAGAAGTGCCTTCCAGTGAACA  
CTCCCCAAAGCAGGATCCAGAATGCTGCAAGAGGAGGCCAGCCACCTATGGTCATTCTCAGAAGAAGCACAAAT  
GCTCAGTGTATTACAGTA AACACAAAACCAGCACAGCTGCGGCCAGCAGCACCAGCAGCACTACTGAGGAAAAAC  
AGACTTCACCCCTGGGCAGCTCACTGCCTGCTGCTAAAGAGGACATTTGCACTGATGCCATGCGTGAGAACTGGA  
TCAGCCTCAGATATGCAAGTGGCATAAATGTCAACCTGCAGAAGAATTTAACCTTCCCCAAAACTTACTGAATA  
AAGAAGAAAACACACTGAAAAACACAATTGTTTTAGTAATCCTTCTTCAGAATGTAGTATGAAGGAGGGAATAC  
AGACATGTATGTTTCTTAAGGAACTGACATTA AAACCTTCAGAGAACACAGCCGAGTTCAAGGAACGGGAGCTCT  
GTCCACTGAAGACCTCCAAGAACTACCTGAAAACCATTTACCAAGAACTCACCTCAGTACCACCAGCCAGACT  
TGCCAGAAATTTCCAGGAAAAATAATGGGAATAACCAGCAAGTACCTGTCAAGAATGAAGTAGATCATTGTGAAA  
ATTTGAAGAAGGTGGACACAAAGCCTTCTTCAGAAAAGAAGATTCACAAAACATCTAGAGAAGACATGTTTTCTG  
AGAAACAGGACATACCTTTCTG TAGAGCAAGAAGATCCTTATAGGAAGAAAAAGCTTCAGGAGAAAAAGAAAGGAA  
ATTTACAAAATTTAAATTGGAGTAAAAGTCGAACATGTAGAAAAGAACAAGAAAAGGGGTGTTGCTCCAGTCTCAA  
GGCTCCTGAACAGAGTGATCTAAAGCTTGTGTGCAGTGACTTTGAGAGGTCTGAGCTGAGCAGTGACATCAATG  
TAAGAAGCTGGTGTATACAGGAAAGCACTAGGGAGGTTTGTAAAGCAGATGCCGAAATTGCAAGCAGTTTACCTG  
CTGCCCAGAGAGAGGCAGAAGGTTACTACCAGAAAGCCTGAGAAGAAATGTGTGGACAAGTTCTGCTCCGATTCCA  
GCTCTGACTGTGGGAGCTCCTCTGGCAGCGTGCGTGCCAGCCGGGGCAGCTGGGGGAGCTGGAGCAGCACCAGCA  
GCTCCGACGGGGATAAGAAGCCCATGGTGGACGCCCCAGCACTTCCTGCCGGCCGGAGACAGTGTTTTACAAAATG  
ATTTTCCTTCTGAAGCTCCCATCTCCTTGAATCTTTCTCATAACATCTGCAATCCCATGACCGTGAATAGTCTCC  
CACAATACGCAGAGCCTTCTGTCCAGCCTTCTGCGGGGCCACAGGTGTTGAAGAAGATAAAGGTCTTTACT  
CACCTGGAGACCTGTGGCCCACTCCGCCAGTGTGTGTGACAAGCAGCTTAAACTGCACCCTGGAGAACGGCGTGC  
CTTGTTGATTTCAGGAGTGGGCCCGGTTTCATAATAGTTTCATTGATTGGAGTGCAACATGCCAAGGCCAGTTTT  
CCAGCGCATACTGTCCATTGGAATTGAACGATTACAATGCCTTTCCAGAAGAAAACATGAACTATGCCAATGGCT  
TCCCCTGTCTGCAGATGTTTCAGACAGACTTTATTGATCACAACCTCTCAGTCTACCTGGAACACCCCAACCA  
TGCTGTGCTGCCTGGGGACATGCCAGTTTCATCAGCTCTCCGCCCTACCTCACAAGCACCCGAAGCTTGTCTCCAA

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**FIGURE 1503B**

TGTCCTGGACTTTTTGGTTCCATCTGGGCCCCGCAAAGCGATGTGTATGAAAATTGCTGCCCCATCAACCCACCA  
CGGAACATTCGACCCACATGGAAAACCAAGCGGTCGTGTGCAAGGAATACTACCCGGGGTTCAACCCGTTTCGCG  
CCTATATGAACCTGGACATATGGACTACCACAGCGAATAGGAATGCAAATTTCCCACTGTCTAGAGACTCGAGTT  
ACTGTGGGAATGTGTGA~~TGA~~AAATAATTGGATTTTTAAACAATGTGAATAAAGAGGCTTGTGTTTTGAAAAAAAAAA  
AAAAAA

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**FIGURE 1504**

MLLVLECVLF SVAQGYFRMDSSATQFHIETHENTSGLWSIWYRNHFDRSVVLNDVFLSKETKHM LKIILNFTG PLF  
LPPGCWNIFSLKLAVKDIAINLFTNVFLTTNIGAI FAIPLQIYSAPTKEGSLGF EVIAHCGMHYFMGKSKAGNPN  
WNGSLSLDQSTWNVDSELANKLYERWK KYKNGDVCKRNVLTGTRFAHLKKSKESES FVFFLPRLIAEPGLMLNFS  
ATA LR SRMIKYFVVQNPSSWPVSLQLLPLSLYPKPEALVHLLHRWFGTDMQMINFTTGEFQLTEACPYLGTHSEE  
SRFGILHLHLQPLEMKRVGVVFTPADYGKVTSLILIRNNLTVIDMIGVEGFGARELLKVGGRLPGAGGSLRFKVP  
ESTLMDCRRQLKDSKQILSITKNFKVENIGPLPITVSSLKINGYNCQGYGFEVLDCHQFSLDPNTSRDISIVFTP  
DFTSSWVIRDLSLVTAADLEFRFTLNVTLPHHLLPLCADVVPGPSWEESFWRLTVFFVSLSLLGVLIAF'QQAQY  
ILMEFMKTRQRQNASSSSQQNNGPMDVISPHSYKSNCKNFD TYGPSDKGRGKNCLPVNTPQSRIQNAAKRSPAT  
YGH SQKKHKCSVYYSKHKTSTAAASSTSTTTEEKQTSPLGSSLPAAKEDICTDAMRENWISLRYASGINVNLQKN  
LTL PKNLLNKEENTLKN TIVFSNPSSECSMKEGIQTCMFPKETDIKTSENTA EFKERELCPLKTSKKLPENHLPR  
NSPQYHQPDLP EISRKNNGNNQQVPVKNEVDHCENLKKVDTKPSSEKKIHKTSREDMFSEKQDIPFVEQEDPYRK  
KKLQEKREGNLQNLNWSKSRTC RKNNKKRGVAPVSRPPEQSDLKLVCSDFERSELSSDINVRSWCIQESTREVCKA  
DAEIASSLPAAQREAGYYQKPEKKCVDFKFCSDSSSDCGSSSGSVRASRGWSGWSSTSSSDGDKKPMVDAQHFL  
PAGDSVSQNDFPSEAPISLNL SHNICNPMTVNLSLPQYAEPSCLPAGPTGVEEDKGLYSPGDLWPTPPVCVTSS  
LNCTLENGVPCV IQESAPVHNSFIDWSATCEGQFSSAYCPL ELNDYNAFPEENMNYANGFP CPADVQTD FIDHNS  
QSTWNTPPNMPAAWG HASFISSPPYLTSTRSLSPMSG LFGSIWAPQSDVYENCCPINPTTEHSTHMENQAVVCKE  
YYPGFNPF RAYMNLDIWTTTANRNANFPLSRDSSYCGNV

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**FIGURE 1505**

GTTTTGCCTGCTAGCATCTCCCTGTAACCTCTCCCAATCTTGAGGAGTGATCCCTGTCCCAGCCCCTGGAAAGGGG  
CAGGAACGACAAACTCAAAGTCCAGG**ATG**TTTACCATGACAAGAGCCATGGAAGAGGCTCTTTTTTCAGCACTTCA  
TGCACCAGAAGCTGGGGATCGCCTATGCCATACACAAGCCATTTCCCTTCTTTGAAGGCCTCCTAGACAACTCCA  
TCATCACTAAGAGAATGTACATGGAATCTCTGGAAGCCTGTAGAAATTTGATCCCTGTATCCAGAGTGGTGCACA  
ACATTCTCACCCAACTGGAGAGGACTTTTAACTGTCTCTTCTGGTGACATTGTTTCAGTCAAATTAACCTGCGTG  
AATATCCCAATCTGGTGACGATTTACAGAAGCTTCAAACGTGTTGGTGCTTCCTATGAACGGCAGAGCAGAGACA  
CACCAATCCTACTTGAAGCCCCAACTGGCCTAGCAGAAGGAAGCTCCCTCCATACCCCACTGGCGCTGCCCCCAC  
CACAACCCCTCAACCAAGCTGTTACCCCTGTGCGCCAAGAGTCAGTGAGCCTGGAACATCCTCCCAGCAAAGCG  
ATGAGATCCTGAGTGAGTCGCCCAGCCCATCTGACCCTGTCTGCTCTCCCTGCACTCATCCAGGAAGGAAGAA  
GCACTTCAGTGACCAATGACAAGTTAACATCCAAAATGAATGCGGAAGAAGACTCAGAAGAGATGCCAGCCTCC  
TCACTAGCACTGTGCAAGTGGCCAGTGACAACCTGATCCCCCAAATAAGAGATAAAGAAGACCCTCAAGAGATGC  
CCCACTCTCCCTTGGGCTCTATGCCAGAGATAAGAGATAATTCTCCAGAACCAAATGACCCAGAAGAGCCCCAGG  
AGGTGTCCAGCACACCTTCAGACAAGAAAGGAAAGAAAAGAAAAGATGTATCTGGTCAACTCCAAAAGGAGAC  
ATAAGAAAAAAGCCTCCCAAGAGGGACAGCCTCATCTAGACACGGAATCCAAAAGAAGCTCAAAAGGGTGGATC  
AGGTTCTCTAAAAGAAAGATGACTCAACTTGTAACCTCACGGTAGAGACAAGGGCCCCAAAAGGCGAGAAGTGAAT  
GTGCCCCGAAAGTCGAGATCAGAGGAGATCATTGATGGCACTTCAGAAATGAATGAAGGAAAGAGGTCCCAAGA  
CGCCTAGTACACCACGAAGGGTCACACAAGGGGCGACCTCACCTGGGCATGGCATCCAAGAGAAGCTCCAAGTGG  
TGGATAAGGTGACTCAAAGGAAAGACGACTCAACCTGGAACCTCAGAGGTGATGATGAGGGTCCAAAAGGCAAGAA  
CTAAATGTGCCCGAAAGTCCAGATCGAAAGAAAAAGAAAAGGAGAAAGATATCTGTTCAAGCTCAAAAAGGAGAT  
TTCAGAAAAATATTACCGAAGAGGAAAACCCAAAAGTGACACTGTGGATTTTCACTGTTCTAAGCTCCCCGTGA  
CCTGTGGTGAGGCGAAAGGGATTTTATATAAGAAGAAAATGAAACACGGATCCTCAGTGAAGTGCATTCGGAATG  
AGGATGGAACCTTGGTTAACACCAAATGAATTTGAAAGTCGAAGGAAAAGGAAGGAACGCAAAGAAGTGGAAACGGA  
ATATACGTTGTGAAGGAATGACCCTAGGAGAGCTGCTGAAGCGGAAAAACTCGGATGAATGCGAGGTGTGCTGTC  
AAGGGGGACAACCTTCTCTGCTGCGGTACTTGTCCACGAGTCTTCCATGAGGACTGTACATCCCCCCTGTGGAAG  
CCAAGAGGATGCTGTGGAGTTGCACCTTCTGCAGGATGAAGAGGTCTTCAGGAAGCCAACAGTGCCATCATGTAT  
CTAAGACCCTGGAGAGGCAGATGCAGCCTCAGGACCAGCTGAAATGTGAGTTCCTCCTCTTGAAGGCCTACTGTC  
ATCCACAAAGCTCCTTTTTTACGGGCATCCCATTTAATATTCGAGATTACGGTGAGCCCTTTCAGGAAGCAATGT  
GGTTGGACCTGGTTAAGGAAAGGCTGATTACGGAATGTACACGGTGGCATGGTTTGTGCGAGACATGCGCCTGA  
TGTTTCGCAACCATAAAACATTTTACAAGGCTTCTGACTTTGGCCAGGTAGGACTTGACTTAGAGGCAGAATTTG  
AAAAAGATCTCAAAGACGTGCTCGGTTTTTATGAAGCCAATGACGGCGGTTTTCTGGACTCTTCCT**TGA**CCCTGTT  
CTGTAAAGACTGAAGCATCCCCACCTCAGGATTCAGCTGATGGGACCCTGGCTTGGACTGTTGATTGCCAGTGAG  
TCTGGGATGTAATTGGCTGCCCTCAGGACCCAAACCCAGACACTTCATAGGATTATCACACCCTCCATCTTTATT  
CTTTCTTTTACCTTTAAAAGTCTATATCTA

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**FIGURE 1506**

MFTMTRAMEEALFQHFMHQKLGIAIAIHKPPFFEGLLDNSIITKRMYESLEACRNLI PVSRVVHNI LTQLERT  
FNLSLLVTLFSQINLREYPNLVTIYRSFKRVGASYERQSRDTPILLEAPTGLAEGSSLHTPLALPPPQPPQPSCS  
PCAPRVSEPGTSSQQSDEILSESPSPSDPVLPLPALIQEGRSTSVTNDKLTSKMNAEEDSEEMP SLLTSTVQVAS  
DNLIPQIRDKEDPQEMPHSPLGSMPEIRDNSPEPNDPEEPQEVSSTPSDKKGKKRKRRCI WSTPKRRHKKKSLPRG  
TASSRHGIQKKLKRVDQVPQKKDDSTCNSTVETRAQKARTECARKSRSEEIIDGTSEMNEGKRSQKTPSTPRRVT  
QGAASPGHGIQEKLQVVDKVTQRKDDSTWNSEVMRVQKARTKCARKSRSEKKKEKD ICSSSKRRFQKNIHRRG  
KPKSDTVDFHCSKLPVTCGEAKGILYKKMKMHGSSVKCIRNEDGTWLT PNEFEVEGKGRNAKNWKRNI RCEGRTL  
GELLKRKNSDECEVCCQGGQLCCGTCPRVFHEDCHIPPEAKRMLWSCTFCRMKRSSGSQQCHHVSKTLERQMQ  
PQDQLKCEFLLLKAYCHPQSSFFTGIPFNIRDYGEPPQEAMWLDLVKERLITEMYTVAWFVRDMRLMFRNHKTFY  
KASDFGQVGLDLEAEFEKDLKDV LGFHEANDGGFWTLP

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**FIGURE 1507A**

GCCGGGCAGTGGGCAGGTATGGCTGAGGGCGTGTGAGCGCCGAGCGCTAAGGGCCGCCGCCACCATGCCAGGGGG  
CGCAGGCGCCGCCAGGCTCTGCTTGCTGGCGTTTGCCCTGCAGCCCCCTCCGGCCGCGGGCGGGCGGGGAGCCTGG  
ATGGACAAGAGGAAGTGAGGAAGGCAGCCCCAAGCTGCAGCATGAACCTTATCATACCTCAGTGGAAGACTTCAGA  
AAGCCCCGTGAGAGAAAAGCATCCACTCAAAGCTGAGCTCAGGGTAATGGCTGAGGGGCGAGAAGTATCCTTGA  
CCTGGAGAAGAATGAGCAACTTTTTTGCTCCTTCCTACACAGAAACCCATTATACTTCAAGTGGTAACCCCTCAAAC  
CACCACACGGAAATTGGAGGATCACTGCTTTTACCACGGCACGGTGAGGGAGACAGAAGTGTCCAGCGTCACGCT  
CAGCACTTGCCGAGGAATTAGAGGACTGATTACGGTGAGCAGCAACCTCAGCTACGTCATCGAGCCCCCTCCCTGA  
CAGCAAGGGCCAACACCTTATTTACAGATCTGAACATCTCAAGCCGCCCCCGGGAAGTGTGGGTTCGAGCACTC  
CAAGCCCACCACCAGGGACTGGGCTCTTCAGTTTACACAACAGACCAAGAAGCGACCTCGCAGGATGAAAAGGGA  
AGATTTAAACTCCATGAAGTATGTGGAGCTTTACCTCGTGGCTGATTATTTAGAGTTTCAGAAGAATCGACGAGA  
CCAGGACGCCACCAAACACAAGCTCATAGAGATCGCCAACTATGTTGATAAGTTTTACCGATCCTTGAACATCCG  
GATTGCTCTCGTGGGCTTGGAAGTGTGGACCCACGGGAACATGTGTGAAGTTTCAGAGAATCCATATTCTACCCT  
CTGGTCTTTCTCAGTTGGAGGCGCAAGCTGCTTGCCCAGAAGTACCATGACAACGCCCAATTAATCACGGGCAT  
GTCTTCCACGGCACCCATCGGCCTGGCCCCCTCATGGCCATGTGCTCTGTGTACCAGTCTGGAGGAGTCAA  
CATGGACCACTCCGAGAATGCCATTGGCGTGGCTGCCACCATGGCCACGAGATGGGCCACAACCTTTGGCATGAC  
CCATGATTCTGCAGATTGCTGCTCGGCCAGTGGCGCTGATGGTGGGTGCATCATGGCAGCTGCCACTGGGCACCC  
CTTTCCCAAAGTGTTCAATGGATGCAACAGGAGGGAGCTGGACAGGTATCTGCAGTCAGGTGGTGAATGTGTCT  
CTCCAACATGCCAGACACCAGGATGTTGTATGGAGGCCGGAGGTGTGGGAACGGGTATCTGGAAGATGGGGGAAGA  
GTGTGACTGTGGAGAAGAAGAGGAATGTAACAACCCCTGCTGCAATGCCTCTAATTGTACCCTGAGGCCGGGGGC  
GGAGTGTGCTCACGGCTCCTGCTGCCACCAGTGTAAGCTGTTGGCTCCTGGGACCCTGTGCCGCGAGCAGGCCAG  
GCAGTGTGACCTCCCGGAGTTCTGTACGGGCAAGTCTCCCCACTGCCCTACCAACTTCTACCAGATGGATGGTAC  
CCCCGTGAGGGCGGCCAGGCCTACTGCTACAACGGCATGTGCCTCACCTACCAGGAGCAGTGCCAGCAGCTGTG  
GGGACCCGGAGCCCGACCTGCCCCCTGACCTCTGCTTCGAGAAGGTGAATGTGGCAGGAGACACCTTTGGAAACTG  
TGGAAAGGACATGAATGGTGAACACAGGAAGTGCAACATGAGAGATGCGAAGTGTGGGAAGATCCAGTGTGAGAG  
CTCTGAGGCCCGGCCCTGGAGTCCAACGCGGTGCCCATTGACACCCTATCATCATGAATGGGAGGCAGATCCA  
GTGCCGGGGCACCCACGTTCTACCGAGGTCTGAGGAGGAGGGTGACATGCTGGACCCAGGGCTGGTGACTGG  
AACCAAGTGTGGCTACAACCATATTTGCTTTGAGGGGCAGTGCGAGGAACACCTCCTTCTTTGAAACTGAAGGCTG  
TGGGAAGAAGTGCAATGGCCATGGGGTCTGTAAACAACACCAGAACTGCCACTGCCTGCCGGGCTGGGCCCGCC  
CTTCTGCAACACACCGGGCCACGGGGGCGAGTATCGACAGTGGGCCCTATGCCCCCTGAGAGTGTGGGTCTGTGGT  
AGCTGGAGTGTGGTGGCCATCTTGGTGTGGCGGTCTCATGCTGATGTACTACTGCTGCAGACAGAAACA  
ACTAGGCCAACTCAAGCCCTCAGCTCTCCCTTCCAAGCTGAGGCAACAGTTTCAAGTTGTCCCTTCAGGGTTTCTCA  
GAACAGCGGGACTGGTTCATGCCAACCCTTCAAGCTGCAGACGCCCCAGGGCAAGCGAAAGGTGATCAACAC  
TCCGGAATCCTGCGGAAGCCCTCCAGCCTCCTCCCCGGCCCCCTCCAGATTATCTGCGTGGTGGGTCCCCACC  
TGCACCACTGCCAGCTCACCTGAGCAGGGCTGCTAGGAACTCCCCAGGGCCCGGGTCTCAAATAGAGAGGACGGA  
GTCGTCCAGGAGGCCTCCTCCAAGCCGGCCAATTCCCCCGCACCAATTCATCGTTTCCCAGGACTTCTCCAG  
GCCTCGGCCGCCCCAGAAGGCACTCCCGGCAACCCAGTGCCAGGCGCAGGAGCCTCCCCAGGCCAGGAGGTGC  
ATCCCCACTGCGGCCCCCTGGTGTGGCCCTCAGCAGTCCCGGCCTCTGGCAGCACTTGCCCCAAAGTTTCCAGA  
ATACAGATCACAGAGGGCTGGAGGGATGATTAGCTCGAAAATCTAGACCTGTCCAAGGGGCTTCTCCCTTTCTT  
GAGCTCTCTGGACACTGCAGAGGACCCATGACCATGGAACCCCTGAAGAAGCATGTCTGGCCGCTCTGAGCTCCT  
CCCACCTCCTCCAGGAACCTCCACATCTCCAAAAATCTCCCTGTTGACTCAGTGCCTCCTCGGCTTCTTGGAA  
GCCCAGAGGGACTATGATCTGATGGCCTCTAGGTGTTGTTTTGTGCAATATACAGCCCCAGGTAGGGAGGGGAGA  
GTATGAGGAGGGTGACTGGCAGCTTCTCCTCCAGACTCCTAGCCCCGAGGTGCTGATGGAGATGCTCAAGGCCAG  
CAAGCCCCCTCAGGCCAGCACTTCGCTTGCAAGCCATCCATTCACTCCTGGGGTGCAGGGCACGCAAGAGAGCT  
TCCCATTGCTTCTGCTCTCCTCAGAGGTCCCGGGCTGGATGGAGGTGGTACTTACCCACCCCTTTTAGCTTTTAG  
GGATTAAGGAAGGGTCAAGCCAGCCACTGCTGTGGCCCTGCCAGGGCTTGGTTGAGGGAACGGCTTCTGGCTGT  
ATGGCTGCATGTGACAAGCCACGTCCCCTCCACCTCTCCCCAAACCCCTGCATCCCTGTATTACACGGGTCAC  
TCTGACTCAGACAGGTACTATTCTGAGGAGTGTAGACAGCAGGAGGAGCACCAGGGCTTGGGCTTCTCTGAGCC  
GTGATGCCAAAGGTTGCGACTCCTGACTCTGGATAATTTTTAGTTGCTCTTTGTTTTCTTGCCGCACTTTCCTG

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**FIGURE 1507B**

GTGCCCCACGCTTTTCTCTCTTCCTTCCCCTCTCATTCTCCCTCTAATGTGTGGTGCTTTGGTGAGCAAACCCTC  
AGCAGTCCCTGACCTTCGGGTGACCAGGTGCTTGTGACCTACAAGTCAGAGTCCACTCTCACAGTCGGCCACTGGA  
TTTCCCCTCACTGGCTCTCAGGAGTGTGACCAGAGTAGACTCGGGGCATGGCCATTGGGGTCATATGTTTATTTTT  
CATTGTGTTTTGTGACCTCAGCAGGGTGGGGGTCTTCCTCCTTACTCTAAGCTAAATCTAGGTGAGGTTTCCCCT  
TAGGGAGCCCAGCTATTTACAAAGTACACACGAGGGAGCAGGCTGGTCATTGACTTCGGGCTGGACCGTTGCCCT  
CTGAGCAGAGAACAGACCCATTTTCTGGGAGCTGCCCAGATCACTGGAGAAGGCAGCCAGCAGCAGCTGCACTG  
GAACAGTCAGAGCAGGGAGCCTCTTCCTCAACCCAGCTTTTTGTCTATTCACTTCCTTTTGTCTCTCTCTGGTCA  
CTGCCCTTACCTGACCCTCACAGAAAGAGAGCTCTGAGCAGGTGAGGGGTCTGCGGTGGCTCCTGTCTTCCCTG  
CAGCAGGGAAGGAGGGCCGTGTGGTGCTTTGCTAGATAGGACGGTTTTTGCAAAGCACCTGGAGATGTTTGCTGG  
GAGATAGACTCCCCTCCACAAAGGTGCTGGGTGGCTCTCCGGACAGGAGCTGGCCTGACTCTCACTCCTCTGAG  
GCTTTCCTGGGGCCTCCTCCCATCCTGCCATGAGCAATTGTTTGCTCTTGAAAACCTCACTGCAAGGCTGAAGCT  
GACTTCTGATTACACCCCCAGGGCCTCCTTATAGTTCTCTGCACACAATAGGTGCTTCTTGATGTTCTTGGGT  
TTGGAATAAGTGGAATAACGGATGTACCCCTGGGGGAAAAGCCTGGGTGGGTTTAGAAAGATCTCAGGAAA  
ATGAGTTTTCTTCCCTCAGGGTGGCTGTGATACAGGTTCCCCATGTCCTTGCCGTGGGTCACTCTGTGTGGG  
TCATCCTTGCTGTGGAGATCCATTCCCCACCTTTCCTGTGGCCCCAACCTTTTATTTAAATGTGCTACCCTCTGCC  
TCAAGGCTTGGTTCCTGGAAAGTAAAGGTGAAAACATCCCCTTTACCCCTCTGCAAAACAAACAAGCAACATCC  
TCAAAACCCCAACCCCATGCCTCACAGAGCTTCTGTGGCTTCTCCAGCCTTCTCCTCACATCAGGAGGTAGAT  
AGCTCTGAAATGACAGCGCCACAGCCATAGTGAAGTGCATGAGCCATCTGAACCTGCAGTCCACCCTCCCTGGAAC  
CACACCAGAAAGAGACCTGGGTGTGCTTTTTCTTGCTTTTTGTTTTGTTTTGTTTTATTATTTTCATATCACCTC  
CATCCCATAAAGTTGTACTGTGAAGTGAAGATGGTGAATGTTTTGGAATTTGATAGACTTTTCGGCAACCAGTT  
CTACTAATGCTTCACTCCTGGCTCTGTTTCAGGGAAGCTGCCAGGAAGAAGACTGGCCATTATGCATCCCCTTTT  
CTTTCCAGTGCCCAGTATGCTGTTTTTGAGGTGTCAAATACAAATAAATCTGGGCTTAGGGAAGGAGAGACCTTA  
TTCCAAAGCATGATTGCAGAAGGGGAAAGGGAATATTGCAAAGGGAGAGGAAGGGGCCTTATGGGAATAGTGAA  
AAGGCTCAGACCGACCGATGGCAAGATCTGCAAGCGTCTCAAAGCCCAGGCAGAAAAGGACTTTTCTTTTATTGG  
AAGAAGTAAACATGGCTAGAAAGAACCACGTTACAGGAATGACGTTGTGCCAGGGTTTTTTTTTTTTTTTTTTT  
TTGTCTCCAGGGGAGGGGCTGTTTGCTGGCTCAGGCTGAGGATGGCCCAAAGTCCAGGGTCTGGTGGGGAGGAGG  
GAAGCTTAACCTCAAGTTTGGGTTAGTGAGTTAGCAAGCTCTTTGTGCAGATGGGGATGTAGGTAAATCTTTTAA  
AAGTGAAATTAACCTCCTGCCAATTTTACAACCCAAGAATTTTTTTTTTAAGGGCCTTGGAGCCATCTCTAAACA  
AACCTCAAGGGATTTAGTGCCCTGTCTCCCTGTCTCTAGAAGCCTTAGCCTGGGCACCTGGCTCAATCTTGTAAC  
TGCCTGCTAGCCATAGATTCTTTTACGCTTGCTGACTTCTCCCTATAAGAGTAAAGCCTTTTTCTGCCCCAGCT  
CTGAGACACTTGCAGATCTTAAGGTCTGAGACTTGCTGATTTTCTGGTTGGAGTGTTTTTTTGTATTGCCATAGT  
CCCTTCCCCCTGAAGCAATAGCCCCCTCCCCACCTCCTGCAATACGCCTTCCAATCTTTATTGGAAGTCTCTCCC  
TGCTACTTCCCTAATTTATTCTTATTTGACAGAGGGTATGGAAGACTTGCAATTTGAAAACCTGGGGACCAGTTCC  
AAAGTCAGTAATTGTGTTAACCACGTGTATAACAGCTCTGCTGGACACCCAAGAAAGCCATGGGAACACCAACTG  
GAAAGGTCCCCCTTCCCCAGGGGAGCCTGCGAAGGAGAGGTTCTGTAGAATCCAAGCCCACATTTCCAAAGTCACC  
CCCAACGCGTCTCTCACACCGTCCACTGTGCGTTTGTATGTGCTGGGATCCAGGGCAATGTGAATTTTCTTTT  
TATTTGGGAGATTGTTACGGAAAACAGATCTTCTCTCTCTTGTCACCTATTAATTGTTTACAATATTTGTAC  
ATCTATGCAAAATACTTGAATGGGCCATGGTGCCTTTTTTTCCTTGTTAGTATTTAATTAATAAATGAATTGTTGT  
CATTTGCAATGTTAAAAA



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**FIGURE 1508**

MPGGAGAARLCLLAFALQPLRPRAAREPGWTRGSEEGSPKLQHELIIPQWKTSESPVREKHPLKAELRVMAEGRE  
LILDLEKNEQLFAPSYTETHYTSSGNPQTTTRKLEDHCFYHGTVRETELSSVTLSSTCRGIRGLITVSSNLSYVIE  
PLPDSKGQHLYRSEHLKPPPGNCGFEHSPKPTTRDWALQFTQQTKKRPRRMKREDLNSMKYVELYLVADYLEFQK  
NRRDQDATKHKLIEIANYVDKFYRSLNIRIALVGLEVWTHGNMCEVSENPYSTLWSFLSWRRKLLAQKYHDNAQL  
ITGMSFHGTTIGLAPLMAMCSVYQSGGVNMDHSENAIGVAATMAHEMGNHFGMTHDSADCCSASAADGGCMAAA  
TGHFPFKVFNGCNRELDRLQSGGGMCLSNMPDTRMLYGRRRCNGYLEEDGEEDCGEEEECCNNPCCNASNCTL  
RPGAECAGHSCCHQCKLLAPGTLCREQARQCDLPEFCTGKSPHCP TNFYQMDGTPCEGGQAYCYNGMCLTYQEQC  
QQLWGPGARPAPDLCFEKVNVAGDTFGNCGKDMNGEHRKCNMRDAKCGKIQCSSEARPLESNAVPI DTTIIMNG  
RQIQCRGTHVYRGPEEEGDMLDPGLVMTGTGKCGYNHICFEGQCRNTSFFETEGCGKKCNHGVCCNNNQNCHCLPG  
WAPFFCNTPGHGGSIDSGMPPEVSGPVVAGVLVAILVLAVLMLMYCCRQNNKLGQLKPSALPSKLRQQFSCPF  
RVSQNSGTGHANPTFKLQTPQGKRKVINTPEILRKPSQPPPRPPPDYLRGGSPAPLPAHL SRAARNSPGPGSQI  
ERTESSRRPPPSRP IPPAPNCIVSQDFSRPRPPQKALPANVPVGRRLPRPGGASPLRPPGAGPQQSRPLAALAP  
KFPEYRSQRAGGMISKI

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**FIGURE 1509**

AGAGCCGGCGCCGTCACCGCCCGCATTGCCGCTCCCAGTCCCGCGCTCGGCACGACATGAAATCCCCGACGAGG  
TGCTACGCGAGGGCGAGTTGGAGAAGCGCAGCGACAGCCTCTTCCAGCTATGGAAGAAGAAGCGCGGGGTGCTCA  
CCTCCGACCGCCTGAGCCTGTTCCCCGCCAGCCCCCGCGCGCGCCCCAAGGAGCTGCGCTTCCACTCCATCCTCA  
AGGTGGACTGCGTGGAGCGCACGGGCAAGTACGTGTACTTCACCATCGTCACCACCGACCACAAGGAGATCGACT  
TCCGCTGCGCGGGCGAGAGCTGCTGGAACGCGGCCATCGCGCTGGCGCTCATCGATTTCCAGAACCGCCGCGCCC  
TGCAGGACTTTCGCAGCCGCCAGGAACGCACCGCACCCGCCGCACCCGCCGAGGACGCCGTGGCTGCCGCGGCCG  
CCGCACCTCCGAGCCCTCGGAGCCCTCCAGGCCATCCCCGCAGCCAAACCCCGCACGCCATGAGCCCCGCCGCG  
GGCCATACGCTGGACGAGTCGGACCGAGGCTAGGACGTGGCCGGCGCTCTCCAGCCCTGCAGCAGAAGAACTTCC  
CGTGCGCGGGATCCTCGCTCCGTTGCACGGGCGCCTTAAGTTATTGGACTATCTAATATCTATGTATTTATTTT  
GCTGGTTCCTTTGTAGTCACATATTTTATAGTCTTAATATCTTGTTTTTGCATCACTGTGCCCATTGCAAATAAAT  
CACTTGGCCAGTTTGCTTTTCTACCATCCGGCTGTGGCTCAGTGAGACTCCTGCTGGGAGGGTGGAGGCCAGGA  
ATGGGCGGGCAGGACACCCTCATCCAGTCCTGCGGGGCTGGTGTGAAAGGCGCTGGGAACCGGCTTTGAATGAAT  
AAATGAATCGTGT

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**FIGURE 1510**

MKSPDEVLRERGELEKRSDSLFQLWKKKRGVLTSDRLSLFPASPRARPKELRFHSILKVDCVERTGKYVYFTIVTT  
DHKEIDFRFCAGESCWNAALALIDFQNRRLQDFRSRQERTAPAAPAEDAVAAAAAAPSEPSEPSRPSPPQPKPR  
TP

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**FIGURE 1511**

TGCTTAAAAAACACAACAGGATTTTCGAAGAAATCCTTTCTTAGAAAAACAAACAAAAAACCAAAACAAAAACGTA  
CTTTCTCCCCACTAGTTTACACCACAGGAAGCGAGAGAGCTGCTGCCACTGCTGCTACACAGGAAGACACAGCA  
GGGAGAAGCCCTAGTGCCCTCTGCCGGCTGCCAGGACCTGGTATCGGCCCACAGACCAAGTCCTCCACAGAGGGC  
GAGCCAGGGTGGAGAAGAGCCAGCCAGTGAACCAACATCCCCGATAAAACACCCACTGCTTAAGAGGCAGGCT  
CGGATGGACTATAGCTTTGATACACAGCCGAAGACCCTTGGGTTAGGATTTCTGACTGCATCAAAAACTTATTT  
AGCCCCATCATGAGTGAGAACCATGGCCACATGCCTCTACAGCCCAATGCCAGCCTGAATGAAGAAGAAGGGACA  
CAGGGCCACCCAGATGGGACCCCAACAAAGCTGGACACCGCCAATGGCACTCCCAAAGTTTACAAGTCAGCAGAC  
AGCAGCACTGTGAAGAAAGGTCTCTGTGGCTCCCAAGCCAGCCTGGTTTCGCCAAAGCTTGAAAGGTTTGAGG  
AATCGTGCTTCAGAGCCAAGAGGGCTCCCTGATCCTGCCTTGTCACCCAGCCAGCACCTGCTTCCAGGGAGCAC  
CTAGGATCACACATCCGGGCTCCTCCTCCTCCTCCATCAGGCAGAGAATCAGCTCCTTTGAAACCTTTGGC  
TCCTCTCAACTGCCTGACAAAGGAGCCAGAGACTGAGCCTCCAGCCCTCCTCTGGGGAGGCAGCAAAACCTCTT  
GGGAAGCATGAGGAAGGACGGTTTTCTGGACTCTTGGGGCGAGGGGCTGCACCCACTCTTGTCGCCCAGCAGCCT  
GAGCAAGTACTGTCTCGGGTCCCCTGCAGCCTCCGAGGCCAGAGACCCAGGTGTGTCTGAGTCCCCCTCCCCCA  
GGGCGGCAGCCCAATCAGAAAACCTTTCCCCCTGGCCCGGACCCGCTCCTAAGGCTGCTGTCAACACAGGCTGAG  
GAATCTCAAGGCCAGTGCTCAAGATGCCTAGCCAGCGAGCACGGAGCTTCCCCCTGACCAGGTCCAGTCTCTGT  
GAGACGAAGCTACTTGACGAAAAGACCAGCAAACTCTATTCTATCAGCAGCCAAGTGTCATCGGCTGTCAATGAAA  
TCCTTGCTGTGCCCTTCCATCTTCTATCTCCTGTGCCCAGACTCCCTGCATCCCCAAGGCAGGGGCATCTCCAACA  
TCATCATCCAACGAAGACTCAGCTGCAAAATGGTTCTGCTGAAACATCTGCCTTGACACGGGGTTCTCGCTCAAC  
CTTTCAGAGCTGAGAGAATATACAGAGGGTCTCACGGAAGCCAAGGAAGACGATGATGGGGACCACAGTTCCCTT  
CAGTCTGGTCAGTCCGTTATCTCCCTGCTGAGCTCAGAAGAATTAAAAAAACTCATCGAGGAGGTGAAGGTTCTG  
GATGAAGCAACATTAAAGCAATTAGACGGCATCCATGTCACCATCTTACACAAGGAGGAAGGTGCTGGTCTTGGG  
TTCAGCTTGGCAGGAGGAGCAGATCTAGAAAAACAAGGTGATTACGGTTACAGAGTGTTTTCCAAATGGGCTGGCC  
TCCCAGGAAGGGACTATTACAGAAGGGCAATGAGGTTCTTTCCATCAACGGCAAGTCTCTCAAGGGGACCACGCAC  
CATGATGCCTTGGCCATCCTCCGCCAAGCTCGAGAGCCCAGGCAAGCTGTGATTGTCAACAAGGAAGCTGACTCCA  
GAGGCCATGCCCCGACCTCAACTCCTCCACTGACTCTGCAGCCTCAGCCTCTGCAGCCAGTGATGTTTCTGTAGAA  
TCTACAGCAGAGGCCACAGTCTGCACGGTGACACTGGAGAAGATGTCGGCAGGGCTGGGCTTCAGCCTGGAAGGA  
GGGAAGGGCTCCCTACACGGAGACAAGCCTCTCACCATTACAGGATTTTCAAAGGAGCAGCCTCAGAACAAAGT  
GAGACAGTCCAGCCTGGAGATGAAATCTTGACGCTGGGTGGCACTGCCATGCAGGGCCTCACACGGTTTGAAGCC  
TGGAACATCATCAAGGCACTGCCTGATGGACCTGTCACGATTGTCATCAGGAGAAAAAGCCTCCAGTCCAAGGAA  
ACCACAGCTGCTGGAGACTCCTAGGCAGGACATGCTGAAGCCAAAGCCAATAACACACAGCTAACACACAGCTCC  
CATAACCGCTGATTCTCAGGGTCTCTGCTGCCGCCCCACCCAGATGGGGGAAAGCACAGGTGGGCTTCCCAGTGG  
CTGCTGCCCAGGCCAGACCTTCTAGGACGCCACCCAGCAAAAGGTTGTTCTTAAATAAGGGCAGAGTCACACT  
GGGGCAGCTGATACAAATTGCAGACTGTGTAAAAAGAGAGCTTAATGATAATATTGTGGTGCCACAAATAAAATG  
GATTTATTAGAATTCCATATGACATTATGCCTGGCTTCGCAAAATGTTTCAAGTACTGTAAGTGTGTCAATGATT  
CACCCCCAAACAGTGACATTTATTTTTCTCATGAATCTGCAATGTGGGCAGAGATTGGAATGGGCAGCTCATCTC  
TGTCCCACTTGGCATCAGCTGGCGTCATGCAAGTCATGCAAGGCTGGGACCACCTGAGATCATTCACCTCATAC  
ATCTGGCCGTTGATGTTGGCTGGGAACCTACCTGGGGCTGCTGGCCTGAATGCTTATAGGTGGCCTCTCCTTGTG  
GCCTGGGCTCCTCACAAACATGGTGTCTGGATTCCCAGGATGAGCATCCCAGGATCGCAAGAGCCACGTAGAAGCT  
GCATCTTGTTTATACCTTTGCCTTGGAAGTTGCATGGCATCACCTCCACCATACTCCATCAGTTAGAGCTGACAC  
AAACCTGCCTGGGTTTTAAGGGGAGAGGAAATATTGCTGGGGTCATTTATGAAAAATACAGTTTGTACATGAAAC  
ATTTGCAAAATGTTTTTGGTTGGATTGGAGAAGTAATCCTAGGGAAGGGTGGTGGAGCCAGTAAATAGAGGAGT  
ACAGGTGAAGCACCAAGCTCAAAGCGTGGACAGGTGTGCCGACAGAAGGAACCAGCGTGTATATGAGGGTATCAA  
ATAAAATTGCTACTACTTACCTACC

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**FIGURE 1512**

MDYSFDTTAEDPWVRISDCIKNLFSPIMSENHGHMPLQPNASLNEEEGTQGHPDGTTPPKLDTANGTPKVYKSADS  
STVKKGPPVAPKPAWFRQSLKGLRNRASEPRGLPDPALSTQPAPASREHLGSHIRASSSSSSIRQRISSEFETFGS  
SQLPDKGAQRLSLQPSSGEAAKPLGKHEEGRFSGLLGRGAAPTLVPQQPEQVLSSGSPAASEARDPGVSESPPPG  
RQPNQKTFFPGPDPLRLRLSTQAEESQGPVLKMPSQRARSFPLTRSQCETKLLDEKTSKLYSISSQVSSAVMKS  
LLCLPSSISCAQTPCIPKAGASPTSSSNEDSAANGSAETSALDTGFSNLSELREYTEGLTEAKEDDDGDHSSLQ  
SGQSVISLLSSEELKKLIEEVKVLDEATLKQLDGIHVITILHKEEGAGLGFSLAGGADLENKVITVHRVFPNGLAS  
QEGTIQKGNEVLSINGKSLKGTTHDALAILRQAREPRQAVIVTRKLTPEAMPDLNSSTDASAASASDVSVES  
TAEATVCTVTLEKMSAGLGFSLGEGKGS LHGDKPLTINRIFKGAASEQSETVQPGDEILQLGGTAMQGLTRFEAW  
NIIKALPDGFPVTIVIRRKSLQSKETTAAGDS

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**FIGURE 1513A**

CCGGGGTCCCCTTTACCCAAAGTGAGCCAGCTCAGGCTGTCTGCAAAGCCGGAGGTGCGGGCAGCTCCGGGCATT  
GCATTGGTGCAGGAGGCTTTTATATGCCAGAGAACCTTGAGTGTGCCCTGACATGACAAGGAGCCGTCGTCGTTA  
GGACTACCGACCAGACTCCCGGAAATCATGTTGGTAGGATCCCAGTCTTTTTTCGCCTGGAGGGCCCCAATGGGATC  
ATTAGAAGCCAGTCCTTTTCGCGGTTTCAGCGGCCTCCAGGAAAGGCGATCCAGGTGTAACCTCCTTCATTGAAAAT  
TCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAATGCACAATTTAGGCCACAAAAACAACAATCCCCC  
AAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGAAAAATGGACTTGATGAATATCTGGAGGTT  
CACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAGATATGAAAAGAACTCTCGCCTGGGTGTACTGTAT  
GACCTAGACAAGCAAATTAAAACAATTGAAAGATACATGAGACGCCTGGAGTTTCATATAAGTAAGGTAGATGAA  
CTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCAGCAAAATGAAGCAAGCCTTCGCAACATCC  
CCTGCCAGCAAAGCTGCCCCGGGAGAGTCTGACAGAGATCAATCGGAGCTTCAAGGAGTACACAGAGAATATGTGC  
ACCATGGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCAAGATGAAAGGTCTGGCTGGCTTTGCACGC  
CTCTGTCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGCAGCGGTGGAAGCTGAAAGGCCAAAATAGAA  
GTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGCCCTGATAGTTGGGTTCATCTCCATCAAG  
GTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCGTGACCTGTGAGACCAAAGAGCTGTTTGCA  
GCCCCACCTCAGGTAGTGGCTGTGACATCAATGACCTTGGTACCATCAAAGCTGAACTGGAATCACCTGGTAT  
CCATTTGACATGGAGGACATGACCGCATCCTCAGGCGCTGGGAACAAGGCAGCAGCCCTTCAGAGGAGAATGTCC  
ATGTACAGCCAGGGTACCCCGGAAACGCCCACCTTCAAAGACCACTCCTTCTTTAGGTGGCTGCATCCTTCCCCA  
GACAAGCCCAGGCGGCTGTCTGTCTTGAGTGCCTTGCAAGACACTTTCTTTGCCAAGCTGCACCGCAGCCGCTCC  
TTCAGTGACCTGCCCTCCCTCAGGCCGAGTCCCAAGGCCGTGCTAGAGCTCTATTCAAATCTACCTGATGACATC  
TTTGAAAATGGAAGGCAGCCGAGGAGAAAATGCCACTGTCGCTCAGCTTCAGTGACCTGCCCAACGGGGACTGC  
GCCCTCACCTCCCCTCAACAGGCTCCCCCTTCCAAGCTCAACAAATCCAGAAATTACCATCACCCCTGCGGAGTTT  
AACCTCAGCAGCTTGGCCTCCAGAATGAGGGTATGGATGACACCAGCTCAGCATCTTCCAGGAAGCTCCCTGGGA  
GAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGGAGCCAGAAAACCTGCCTCGGCCCATCT  
GAGGCTTGCCGCCGACAGTCTCAGGTGCTGGGGCTGAGCACCTGTTCTTGAGAATGATGTTGCAGAAGCACTT  
CTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAAGCTGGACACTTCGGAAGGAAACATCACAAAGCAG  
CTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACAGGCTGCTCTCTGAGGGTTCTGTTGGTGGA  
GAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATGCTTTTAATGGGCTTTTACTTGCAATTAGAA  
CCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAGTCATGAATTTGGATGATATTCTAAATGC  
AAGCCAGCAGTAAGCCGACAGAGGTCTTCCAGTTTAAGTCTCACAGTTGAAAGTGCTTTAGAAAGCTTTGATTTT  
CTGAACACCTCTGATTTTGACGAGGAGGAGGATGGTGATGAGTTTGTAAATGTTGGCGGAGGTGCTGACTCAGTA  
TTTTCAGACACTGAGACTGAGAAACACAGTTACAGGTCGGTTTCAACCCAGAAGCCAGGGGGCATCTCAGTGAAGCG  
CTCACTGAAGACACAGGAGTTGGGACAGTGTGGCAGGAAGTCCTCTCCACTGACCACAGGCAACGAGAGCCTG  
GACATCACCATCGTCAGGCACCTCCAGTACTGCACCCAACTCGTGACAGCAAATTGTTTTCTCAAGCAAAACCCCA  
TTTGTGGCAAGAAGTCTCTTAGAGAAGCTTTCTAGGCAGATCCAAGTGATGGAGAACTCGCAGCTGTGATGAT  
GAGAACATAGGAAATATCAGTTCTGTTGTGGAAGCCATACCAGAATTTCAAAAAAGCTGTCTTTGCTGTGCTTC  
TGGACCAAGTGCTGCAGCCCTGTTGGTGTCTACCACAGCCCAGCGGACAGAGTGATGAAGCAGCTGGAGGCCAGC  
TTTGCCAGAAGTGTCAACAAAGAATATCCAGGACTTGACAGCCAGTGTTCGAACCCTGGTGTCCCAAAATCTG  
GACCAGGCTGAGCCTCTGCTTTTCTCCAGCCTGTCTCGGAAGTCGTCAGTGTTTTCCAGTATTACAGTTACTTC  
ACCAGCCACGGCGTCAGTGACCTGGAGAGTTACCTGAGCCAGCTGGCCAGGCAAGTTTCCATGGTTTCAGACTCTG  
CAATCACTAAGAGATGAAAACTGCTACAAACCATGAGTGACCTTGCTCCAGCAACCTCCTGGCCAGCAGGAA  
GTACTCAGGACTCTGGCTCTGCTATTAACCAGAGAGGACAACGAAGTTAGCGAGGCTGTGACGCTTTACTTGGCA  
GCAGCTCCAAAAATCAGCATTTTCAGGGAAAAAGGCCTTGCTCTATTACTGTGAAGCACTAACAAAGACAAACCTC  
CAGCTCCAGAAAGCAGCTTGCTGGCTCTGAAAAATCCTTGAGGCTACTGAAAGCATTAAAAATGCTGGTGACATTG  
TGTCATCTGATACTGAAGAAATCAGAAATGTGGCCTCAGAAACCCTCTTGTCTCTGGGAGAAGATGGGCGGCTG  
GCATATGAACAATTGGACAAATTTCTCGAGACTGTGTTAAAGTCGGAGGTGTCATGGAAGTGAAGTTGCCACA  
GCCTTTTAAATTACAGATTAACTGCCTAACAGCTGTCTTAATATCTGGCCCTTTTCATCAGGATGGTGCTGTGTT  
TGGGCTGGAAATGTTTGTAGAGCCTGAGAGACACGACAAGTGAATAAAATGTAGGCCAGGTGCAGTGGCTCATG  
CCTGTAATCCAGTACTTTGGGAGGCCAACGCAGGAGAATTGCTTAAGCCAGGAGGTTCAAGACCAACCTGGGC

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**FIGURE 1513B**

AACATAGCAAGGCCCTGTCTCTACAAAAAAATAGTTTAATTAGTCGGGCGTGGTGGCATGCACCTGTAGTCCCA  
GCTACTTGGGAGGCTAAGGTGGGAGGATTGCTTGAGCCCAGAAGATTCAGGCTGCAGTGAGCCATAATTGCCCA  
CTGCACTCCAGACTGGGTGACAGAGCAAAACCCTGTCTCAAAAAACAAAACAACAACAACACTAAAAAACATG  
TTATAGAAAGAATTTCAGAGTCTCGTTTCACAGTACCTATCTACTTTTCCTTTGGCCAATATAGAATAGGGCTATG  
GTATAATTCAAATAGATTACATCGTCGATTGTGTCTAATAATACTCAGTGAAAGAGTCCATCTTATCTTAATATG  
TATGAAATTTAAAAATAGCCATCTTTGTACTTTTTTGCAAGTTTCTCTATAAGCTTGAAATAGTCATGTGATACT  
TCGACAAACATCATATGCCTTGCAGTTTTTCTCGGTCTGTCTCAGGGTTGAGTAGTCCCTTAGCTACCTAAC  
TTTACTTTCAATACAAAGCACAAAAAGAATACTTCAAATAAAAGTTTGCCTGCAGAACCTGGCAAAATGACCCA  
TTATGAGAGTTTAGATGTTTTAATTTTATGTGCTCCAGCTACTCTGGAGTCTGAGGTGGGAGGATCACTTGAGG  
CAGAGGTTGCAGTAAGCTGAGATTACACTACTGCCTCCAGCCCATGTGACAGAGGAATGAGAGCCAGTCTCAAA  
AAAAAAAACAAAAAACTCCCATAATTTATTTTGTTCCTTTCCCCATCCTGAAAATTCCCAAATCATGTTTCCA  
TTATGGAAAAATGATAAGTAAATGACTAAGAACTACATTAAGATTATGCCTATACACTTAAACAAAAAACTCAAA  
GCTTATGCTTTTTTTTTTTTAAATTAATGAGAGCTATTTTTTATGATATTCTTACCATAGGGGTGTTTTGCTGCTAA  
GACAAATCAAAACCAAAAGCTGTAGATTACAAACCTGTGATGCTCTTTGAGGTGGAGGAACCTAGAAGTCAGAG  
AAATCCTAATGGAGTAGGAGTGGAGGAACATTTAAAGTGGTCCCTCCTTCTGTAAAAATGACCGTGGGATTAGAA  
AGAAGGACATCCTGAGGGGTGGTTACTGCCCCCAGGGAAATCACTCACTGGTAGGATTCCCTGGCCAAATAGTTC  
AAACATCAGGTCCCATTTATTGCTTCAGTATCAGAGATGCAAGTTCATTAAGCAAAGTACAAGACCATTTCAGTAGC  
TCTTATTTAAATATCTTTTCTTCTCTAAAGAGTGTAAGGTGGGGTATGCCAAGGTATCAAAACAATATATGT  
GAGTGTAATTTAACTGTGGAATATCAACTGTACTATGGACGTGTTTGTATCATTTTAGATGTCATTTTAAATATT  
TACATTTTAGCAAGACTTTTAAAAAGGACTCATTTTCATTTCAAAGTGCAAATTGTTTGCCAGGCTTCTGGCAAAT  
GGTTCTTTCAACTGTGAACCTTATAGTGTAATATCTGTATATTTATAAATATTATATATATTCATACATCCTTCA  
GTTTAAAGGTACATTGTACAGTCTGTAGTTAGGAGGTATAGCCTATAGCTTATGTTAAATGGTTGAAATGGTTCT  
TTTTATAGAAAGTCAAACACAGATGTTACAGGATTTTGTGTTTGGTTTGTCATTTTTTTTATTTTTATTTTGACT  
ATTGCATGAGTAATTAATTCCAGATCTTTTGTATTCACTTCTGTATTTTATGTTTGGTTGAGGGGTGCTTTTAGT  
TGTGTGGCATTGTATTCAATTGATCTTTCAGTCATGTAAGTTAAATAAAAATTATTTTTGAATTACTAGC

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**FIGURE 1514**

MLVGSQSFSPGGPNGIIRSQSFAFSGLQERRSRCNSFIENSSALKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE  
EVYRALKNGLD EYLEVHQTELDKLT AQLKDMKRNSRLGVLYDLDKQIKTIERYMRRLEFHISKVDELYEAYCIQR  
RLQDGASKMKQAFATSPASKAARES L TEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI  
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD  
INDLGTIKLNLEITWYPFDMEDMTASSGAGNKAAALQRRMSMYSQGT PETPTFKDHSFFRWLHPSPDKPRRLSVL  
SALQDTFFAKLHRSRFSFSDLP SLRPSPKAVLELYSNLPDDIFENGKAAEEKMPLSLSFSDLPNGDCALTSHSTGS  
PSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHLKEEDPEEPRKPASAPSEACRRQSSG  
AGAEHLFLENDVAEALLQESEEASELKPVELDTSEGNITKQLVKRLTSAEVPMATDRLLSEGSVGGEGEGCRSFL  
DGSLEDAFNGLLLALEPHKEQYKEFQDLNQEV MNLDDILKCKPAVSRSRSSSLSLTVESALESFDFLNTSDFDEE  
EDGDEV CNVGGGADSVFSDTETEKHSYRSVHPEARGHLSEALTEDTGVGTSVAGSPLPLTTGNESLDITIVRHLQ  
YCTQLVQQIVFSSKTPFVARSLLEKLSRQIQVMEKLA AVSDENIGNISSVVEAIP EFHKKLSLLSFWTGCCSPVG  
VYHSPADRV MKQLEASFARTVNKEYPGLADPVFRTLVSQILDQAEPLLSSSLSEVVTVFQYYSYFTSHGVSDLE  
SYLSQLARQVSMVQTLQSLRDEKLLQTMSDLAPSNLLAQQEVLR TLALLLTREDNEVSEAVTLYLAAASKNQHFR  
EKALLYCEALT KTNLQLQKAACLALKILEATESIKMLVTLCQSDTEEIRNVASETLLSLGEDGRLAYEQLDKFP  
RDCVKVGGRHGTEVATAF



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**FIGURE 1515**

AAGCAGTGGTAACAACGCAGAGTACGCGGGAAGCAGTGGTAACAACGCAGAGTACGCGGGAAGCAGTGGTAACAA  
CGCAGAGTACGCGGGAAGCAGTGGTAACAACGCAGAGTACGCGGAAAGCAGTGGTAACAACGCAGAGTACGCGGG  
GCCAGCGGAAGTGGCTCCTGTAAGGCAGCAAGGTAGCGTGGCCGGCGCCCGAGCTGGGGTTGTGTCCCTGCTGGG  
CTGCCGTTCCAGCTGGACTGCCGCCATGGAACTCAGCGCCGAATACCTCCGCGAGAAGCTGCAGCGGGACCTGGA  
GGCGGAGCATGTGGAGGTGGAGGACACGACCCTCAACCGTTGCTCCTGTAGCTTCCGAGTCCTGGTGGTGTCTGGC  
CAAGTTCGAGGGGAAACCGCTGCTTCAGAGACACAGGCTGGTGAACGCGTGCCTAGCAGAAGAGCTCCCGCACAT  
CCATGCCTTTGAACAGAAAACCCTGACCCCGAGCCAGTGGGCACGTGAGCGACAGAAATGAAGGACTGGGATCTG  
CACAGCCATTAAATTATAAATCTGGACG

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**FIGURE 1516**

MELSAEYLREKLQDLEAEHVEVEDTTLNRCSCSFRVLVVS AKFEGKPLLQRHRLVNACIAEELPHIHAFEQKTL  
TPDQWARERQK

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**FIGURE 1517**

ATTGCTTTCTCTTTTCTTTCTTTCCGGATGAGAGGCTAAGCCATAATAGAAAGAATGGAGAATTATTGATTGA  
CCGTCTTTATTCTGTGGGCTCTGATTCTCCAATGGGAATACCAAGGGATGGTTTTCCATACTGGAACCCAAAGGT  
AAAGACACTCAAGGACAGACATTTTTGGCAGAGCATAGATGAAAAATGGCAAGTTCCTGGCTTTCTTTCTGCTCA  
ACTTTTCATGTCTCCCTCCTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTG  
GGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTACCTGTTCCCGACCATGAGTGCAGAGACCA  
TGGAGCTGAAGTGGGTAAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAGGAAGTGAAGACA  
GGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAA  
TACACAACGTCACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTATGAAAAAGCCC  
TGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTAATCTTCACGTCGAAGTGAAGGGTTATGAGGATGGAGGGATCC  
ATCTGGAGTGCAGGTCCACCGGCTGGTACCCCCAACCCCAAATACAGTGGAGCAACGCCAAGGGAGAGAACATCC  
CAGCTGTGGAAGCACCTGTGGTTGCAGATGGAGTGGGCCCTATATGAAGTAGCAGCATCTGTGATCATGAGAGGCG  
GCTCCGGGGAGGGTGTATCCTGCATCATCAGAAATTCCTCCTCGGCCTGGAAAAGACAGCCAGCATTTCCATCG  
CAGACCCCTTCTTCAGGAGCGCCAGCCCTGGATCGCAGCCCTGGCAGGGACCCTGCCTATCTTGCTGCTGCTTC  
TCGCCGGAGCCAGTTACTTCTTGTGGAGACAACAGAAGGAAATAACTGCTCTGTCCAGTGAGATAGAAAGTGAGC  
AAGAGATGAAAGAAATGGGATATGCTGCAACAGAGCGGGAAATAAGCCTAAGAGAGAGCCTCCAGGAGGAACTCA  
AGAGGAAAAAATCCAGTACTTGACTCGTGGAGAGGAGTCTTCGTCCGATACCAATAAGTCAGCCTGATGCTCTAA  
TGAAAAAATGGCCCTCTTCAAGCCTGGTGAGGAAATGCTTCAGATGAGGCTCCACCTTGTTAAATAAATTGGATG  
TATGAAAAAATAGACTGCAGAAAAGGGAACTCATTTAGCTCACGAGTGGTCGAGTGAAGATTGAAAAATTAACCT  
CTGAGGGCCAGCACAGCAGCTCATGCCTGTAATCCTAGCACTTTGGAAGGCTGAGGAGGGCGGATCACAAAGGTCA  
GGAGATCAAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATACAAAAAATAAAAAATTAGCCG  
GGCATGGTGACGGGCACCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATGGCATGAACCCGGAAGGCA  
GAGCTTGCAGTGAGCCGAGATCACGCCACTGCACTCCAGCCTGGGAGACAGAGCGAGACTCTGTCTCAAGAAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 1518**

MKMASSLAFLLLNFHVSLLLVQLLTPCSAQFSVLGPGPILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGDYFYEKALVELKVAALGSNL  
HVEVKGYEDGGIHLECRSTGWYPQPQIQWSNAKGENIPAVEAPVVADGVGLYEVAASVIMRGGSGEGVSCIIRNS  
LLGLEKTASISIA DPFFRSAQPWIAALAGTLPILLLLLAGASYFLWRQQKEITALSSEIESEQEMKEMGYAATER  
EISLRESLQEELKRKKSST

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**FIGURE 1519**

GGCTCGAGTGCCTGGCGGGCTCTGGCTTCCGCGTCCGCCCCTGCTCCGGCTTCGCCCCGAGCTCCGCGCCCCGCGG  
GCAACCAAGCCCCCAGCGAAGCCCGCACAGCTCCGGGTGCCAGGACGGGGGGCCATGCCGTGCCGGAGGGAGGAG  
GAAGAGGAAGCCGGCGAGGAGGCGGAGGGGGAGGAAGAGGAGGACGACAGCTTCCTCCTGCTGCAGCAGTCCGTG  
ACGCTGGGCAGCTCGGGCGAGGTGGACCGGCTGGTGGCCCAGATCGGCGAGACGCTGCAGCTGGACGCGGCGCAG  
GACAGCCCGGCTCGCCGTGCGCGCCCCCGGGGTGCCGTGCGGGCCCCGGGGCCCCCTGGCTGCGGCGGTGCCG  
GCGGACAAGCCCCGGCCCCCGGCGGTGCCGTGCTGCTGCCGCCCGCTTCGGCTGAGACGGTGGGCCCCGGCGCCC  
TCTGGGGCCCTGCGCTGCGCCCTAGGGGACCGCGGCCGCGTGC GCGGACGCGCTGCGCCCTACTGCGTGGCGGAG  
GTCGCCCGCAGGCCCCAGCGCGCTGCCGGGGCCGTGCCGGCGAGGATGGCTCAGGGACGCGGTCACTCCCGCCGC  
TTGCAGCAGCGCCGATGGACCCAAGCCGGGGCACGCGCCGGCGACGACGACCCGCATCGGCTCCTCCAGCAGCTC  
GTGCTCTCGGGAACCTCATCAAGGAAGCCGTGCGGAGACTCCAACGAGCCGTGCGCGCGGTTCAGCCACGGGC  
CCCGCAAGCGCCCCCTGGGCCCGGGGGAGGCCGAGCGGACCTGACCGCATTGCCCTGCAGCCCTCAGGCTCCTTG  
CTCTGACGCAGGCCTCCTGGAGGAGGAAGTGGAGGCCGCTGCGTAGACCCAACAGCGTCCAGTTCCTACTAATC  
TGAGCTGAAGCCGACGTGCCAGCCTGGGAGCGACCACCTTTGGCTGCGGGAGGCGCGTGGGGAGAGATCTCAAC  
CAGAGAAGTTACCAGCCGCGGCGAGGCCGTGCGAGAAAACCTTAAGCGTGGAGAAATGTATGCGCCAGGGTGCTTC  
CGTGGGGCATGAGAATTTCCCGGGCCATCCAAGCCCAAGGACCTGGGATAAACTGGGAGAACTATGGCAGCTACT  
TGCATCGACTTGTACCTCACTTAGCCCTTGGGGGCGTCGTGAGCTTGGATTGTTTAAGGAGGGCTCAGGGGTAGG  
AATCGCGATGGCTTTATAACAATACTTGAAAACCTAACGACACGCATACATTTTCTTATTTTCTGGTGGAGGAGCT  
TAGTAAGTGGTGCTACAATTGCTGTGCAAAGAAATTCAGAGGGGAGAAGAATGTAAAAGTTTGGTGGTGGGTGG  
CTTGGCATTGCCCTTTTTCCACCGATTCCGGTGGCTGGTGAAGGTGGGAGATGTGAACTCCAATTAAGGGACTG  
GAGAGAGGTGAAGAATTTTGAGGTGGGAGATTGGATTGTAATGTGGACTTGTAATGACTTGACCTTGCCATC  
TGTGTTCAAGGTCACGGTTTGCTGTGGGGTTCCCTGGGAGAGCTTACTACCCCGGAGTCTTTTCTTTCTCTTGCT  
CCAAGAAGAGCCCTGTTGGTGCTTTACCACCGCTTGAGTCTCCCGAGGACACAAACAGGCAGAGAGGGACGTGT  
AGGGAGAGTTCTTTCTGTTTTCTGTGCTTTCCCTTTTACAGGACTCCCGGAAGGCCACTCATGGCCATGCCAGG  
AGCTTTCTCAGAAACAGTCATAAACGATCTCTTGAGTCTCTTTCTTGCTCTCTTCTGGCCCTCCATGGAGCCA  
CCTTTCTGGTGTCTATAGGAATGCATGAGAGACCTGGACGTTTTTCTGCTCTCTTCTGGCCCTCCATGGAGCCA  
TGGGCCTCGGCCTCGGCGGCTCCTCACCTCACAAATTTATTTCTCTCTCTTCTGGCCCTCCATGGAGCCA  
AAACCGGTTTTTAAATGTGACTCTCCAGAGAAGAAGCCGCTGGCTGTATGAACTTGACGGCGCTTTTGTAAAG  
TGCCACCCCCAACTTTAAGGTAGCTAAACCAATTTTAAAAGATTCAATGGCTTGTTTCATCCTCCAGATGTAGC  
TATTGATGTACACTTCGCAACGGAGTGCTGAAATTGTGGTGGTCCTGATTTATAGGATTTTCA

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**FIGURE 1520**

MPCRREEEEEAGEEEAEGEEEEEDDSFLLLQQSVTLGSSGEVDRLVAQIGETLQLDAAQDSPASPCAPPGVPLRAPG  
PLAAAVPADKARPPAVPLLLPPASAETVGPAPSGALRCALGDRGRVRGRAAPYCVAEVAAGPSALPGPCRGRWLR  
DAVTSRRLQQRRWTQAGARAGDDDPHRLQLVLSGNLIKEAVRRLQRAVAATAATGPASAPGPGGGRSGPDRIA  
LQPSGSLL

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**FIGURE 1521**

GCAGAGCACAGCATCGTCGGGACCAGACTCGTCTCAGGCCAGTTGCAGCCTTCTCAGCCAAACGCCGACCAAGGA  
AAACTCACTACC**ATG**AGAATTGCAGTGATTTGCTTTTGCCTCCTAGGCATCACCTGTGCCATACCAGTTAAACAG  
GCTGATTCTGGAAGTTCTGAGGAAAAGCAGCTTTACAACAAATACCCAGATGCTGTGGCCACATGGCTAAACCTT  
GACCCATCTCAGAAGCAGAATCTCCTAGCCCCACAGACCCTTCCAAGTAAGTCCAACGAAAGCCATGACCACATG  
GATGATATGGATGATGAAGATGATGATGACCATGTGGACAGCCAGGACTCCATTGACTCGAACGACTCTGATGAT  
GTAGATGACACTGATGATTCTCACCAGTCTGATGAGTCTCACCATTCTGATGAATCTGATGAACTGGTCACTGAT  
TTTCCACGGACCTGCCAGCAACCGAAGTTTTCACTCCAGTTGTCCCCACAGTAGACACATATGATGGCCGAGGT  
GATAGTGTGGTTTATGGAAGTGAAGTCAAAATCTAAGAAGTTTCGCAGACCTGACATCCAGTACCCTGATGCTACA  
GACGAGGACATCACCTCACACATGGAAAGCGAGGAGTTGAATGGTGCATACAAGGCCATCCCCGTTGCCCAGGAC  
CTGAACGCGCCTTCTGATTGGGACAGCCGTGGGAAGGACAGTTATGAAACGAGTCAGCTGGATGACCAGAGTGCT  
GAAACCCACAGCCACAAGCAGTCCAGATTATATAAGCGGAAAGCCAATGATGAGAGCAATGAGCATTCCGATGTG  
ATTGATAGTCAGGAACTTTCCAAAGTCAGCCGTGAATTCACAGCCATGAATTTACAGCCATGAAGATATGCTG  
GTTGTAGACCCCAAAGTAAGGAAGAAGATAAACACCTGAAATTTTCGTATTTCTCATGAATTAGATAGTGCATCT  
TCTGAGGTCAAT**TAA**AAGGAGAAAAAATACAATTTCTCACTTTGCATTTAGTCAAAAGAAAAAATGCTTTATAGC  
AAAAATGAAAGAGAACATGAAATGCTTCTTCTCAGTTTATTGGTTGAATGTGTATCTATTTGAGTCTGGAAATAA  
CTAATGTGTTTGATAATTAGTTTAGTTTGTGGCTTCATGGAACTCCCTGTAAACTAAAAGCTTCAGGGTTATGT  
CTATGTTCACTTCTATAGAAGAAATGCAAACTATCACTGTATTTTAATATTTGTTATTCTCTCATGAATAGAAATT  
TATGTAGAAGCAAACAAATACTTTTACCCACTTAAAAAGAGAATATAACATTTTATGTCACTATAATCTTTTGT  
TTTTTAAGTTAGTGTATATTTTGTGTTGATTATCTTTTGTGGTGTGAATAAATCTTTTATCTTGAATGTAATAA  
GAATTTGGTGGTGTCAATTGCTTATTTGTTTTCCACGGTTGTCCAGCAATTAATAAAACATAACCTTTTTTACT  
GCCTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1522**

MRIAVICFCLLGITCAIPVKQADSGSSEEKQLYNKYPDAVATWLNPDPSQKQNLAPQTLP SKSNESHDMDDMD  
DEDDDDHVDSQDSIDSNDSDDVDDTDDSHQSDSHHSDSEDELVTDFPTDLPATEVFTPVVPTVD TYDGRGDSVV  
YGLRSKSKKFRRPDIQYPDATDEDITSHMESEELNGAYKAIPVAQDLNAPSDWDSRGKDSYETS QLDDQSAETHS  
HKQSRLYKRKANDESNEHSDVIDSQELSKVSREFHSHEFHSHEDMLVVDPKSKEEDKHLKFRI SHELDSASSEVN



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**FIGURE 1523**

CGCGAGTGAAGGAAGACGAATGCGTGACCCGACCGGCTGTGGTGTTCAGTCCCCACTGACCAGTAGGAGCAGCA  
GGGCGTCGGCTTGTGAGGTGGCTTTTCCTCGGGGCAACCCAGGAAGGCCCAAGAGGACAATGGATTCTGGAACT  
CGCCCAGTTGGTAGCTGCTGTAGCAGCCCCGCTGGGCTCTCACGGGAGTACAAACTAGTGATGCTGGGTGCTGGT  
GGTGTAGGGAAGAGTGCCATGACCATGCAGTTCATCAGCCACCGATTCCCAGAAGATCATGATCCCACCATTGAA  
GATGCTTATAAGATCAGGATCCGTATTGATGATGAGCCTGCCAATCTGGACATTTTGGATACAGCTGGACAGGCA  
GAGTTTACAGCCATGCGGGACCAGTATATGAGGGCAGGAGAAGGGTTTATCATCTGTTACTCTATCACGGATCGT  
CGAAGTTTCCATGAAGTTCGTGAGTTTAAACAGCTTATTTATCGAGTCCGACGTACTGACGATACACCTGTGGTT  
CTTGTGGGAAACAAGTCAGACCTCAAACAGCTAAGACAGGTCACCAAGGAAGAAGGATTGGCCTTGGCCCGAGAA  
TTCAGCTGTCCCTTTTTTGGAGACATCTGCTGCATACCGCTACTATATTGATGATGTTTTCCATGCCCTTGTACGG  
GAGATACGTAGGAAAGAAAAGGAGGCAGTACTGGCCATGGAGAAAAAATCTAAGCCAAAAACAGTGTATGGAAG  
AGGCTAAAATCACCATTCCGGAAGAAGAAAGATTCACTAAGTGAAGAGAGAAGATGTGAAGTGTATCTGTGAAC  
TGCAGTGCTGTATCAAAGCAGTCCAGTAACCTGCAGTACTGAGTATGGTGCTTGCTCTTTCACTTAACTGATAAG  
AGGGACATGCCTACTAGGAGTTTTTAATGATGTGGTATTTAAAGTATTGTCTCTTAGTTAAGTATGATTTATTAA  
CCCAGTGGAGCACTGTCTGCTTTTAAATTGTCACATTAGAATTTGTTCTACCAAAAAAAAAA

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**FIGURE 1524**

MDSGTRPVGSCSSPAGLSREYKLVMLGAGGVGKSAMTMQFISHRFPEDHDPTIEDAYKIRIRIDDEPANLDILD  
TAGQAEFTAMRDQYMRAGEGFIICYSITDRRSFHEVREFKQLIYRVRTDDTPVVLVGNKSDLKQLRQVTKEEGL  
ALAREFSCPFFETSAAAYRYIIDVVFHALVREIRRKEKEAVLAMEKKSKPKNSVWKRLKSPFRKKKDSVT

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**FIGURE 1525**

ATTGCATTTTTATTACATACACATTGTTAATGTGGAACAATTTAACACTAATCTCATCAGAGAGCGAGATGAAT  
GTGGCAATTGCTCATTTTTATTTTGCATATATTAAATTGAGTAGGTTTCAGCTCTAACATACCTTAAGAAAAATGCA  
TATCGGTGCACTGTATGTATTTCAAATGCCTTTTCTATGATTGTCATGTCCTCCTTTAAGGCTTTTCCCTCAAA  
TTTATTACAAATTTAGTATTTTGTAGTACTTGATGACTCTAATTACATGAATGCACCTGGAATGACATTTGTAACA  
GAAGACGGTCTGACTTGCTTTTCAGTATTACAAAGTTCTTTCCAGTTTCCAAGTCTTTTCTAGCAGTAATTTAGG  
GGAGACAGAGGAGTTTCATGTAAAGAGCATGCAGTTTGGAGTCAGAACCTGGGTATGACTCTGTGGCCTTGATGA  
AGCAAGTTACTTAAACTCTTGAGTTTTAGCTTTTCTCCTTTACAATGCATGAATGCCTATCCCCCTACAAAACAAA  
GATTAAATGTGATGATGTATGCCAAGGTGCTTTGTATATTGTAAAGTGCTATATAATTATAAGATGTTCTAAATT  
TTCAAGGATCTAAACCAGGGATTGGCAAACGTTTTTCCAGGGAGTAAATATTTTACGCTTTGCATATATAATTTA  
TGGAGGTGTTGAGAGGATAGATTAGACACTTGAAGTACTCAGGATAGTGCCTGGCATGTAGGAAGCACCTGGAAA  
ATATTCGCTGTGATTACCATCAGTCCATTTTACCGAGGAAGGAGCCAAGGTCCAGGCCCACTGAAGGACTTGCAT  
AACATTACAATAGCAGTGGCAGAACCAGCCATGCTTCTGCAAATCACAACCTCTTTGAGCCTCTGTCACCTGAAC  
TGCAAAATGAGTGGGTAGACAAAATCATCTGTTGGGACCTCCTAGTTCCACGTGCTATCATTCTACTAACTGGC  
ACCCTAAGGTTGAAAGTGCTTATCTGCTTTCCAATGTGGCTTCCTTACAGTCTGGAAGTACAAATATGCAGGAGC  
AGTAAACTGGCAGAAAACCAGGAATCAGAGAAAAGAAAATATAATTTAACTTTAAAGATGTAAATTATATATATAG  
TATATTATATATATTTTTAAAGCTTTATATGCCTCAAATATCAGGGAAAGGAGCCAAGTCCTTGGTATTTAGTTT  
GGTGAATACTTGCATTGAATACATGTCAAGATGTCAAGTCATTTTTGAATGTGTCTCAGGGATTTCTATGCTACA  
CATTCTTTTAACAAATCAAGTATTTATGTACACATGTTTCAGATTTTTTGACAAAATGATTAAAAATAATGAGATGG  
AAAAATGAAAAAAAATCTATGTCGGGTGCGGAGAAAAGAGGTAATGAAATG

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**FIGURE 1526**

·MSGLDKIICWDL·LV·PRAI·LLTG·TLRL·KVLIC·FPMWL·PYSLE·LTICR·SSKLA·ENQ·ESEKENII

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**FIGURE 1527**

TGCGACGTGACTGGCTAGCTGCGTGGGTACTGGAACAAGCAAACGAGGCAGCGAGCGAAGGACGGGAGCCGGACC  
CTGGGCCCCGTGGAACCTCAGCCTGCGCCACCACGTCACGCACACGCTCGGCGCTGCGATCCGCGCATATAACGA  
TATTTGGATTGACCTGCATTTTGGAAATTTATCTACACTTAAATGATGCCACCAGCAGTTGGAGGTCCAGTTGGATA  
CACCCCCCAGATGGAGGCTGGGGCTGGGCAGTGGTAATTGGAGCTTTTCAATTCATCGGCTTCTCTTATGCATT  
TCCCAAATCAATTACTGTCTTCTTCAAAGAGATTGAAGGTATATTCATGCCACCACCAGCGAAGTGTCTATGGAT  
ATCCTCCATAATGTTGGCTGTCATGTATGGTGGAGGTCTTATCAGCAGTATCCTGGTGAATAAATATGGAAGTCG  
TATAGTCATGATTGTTGGTGGCTGCTTGTGAGGCTGTGGCTTGATTGCAGCTTCTTTCTGTAACACCGTACAGCA  
ACTATACGTCTGTATTGGAGTCATTGGAGGTCTTGGGCTTGCCCTTCAACTTGAATCCAGCTCTGACCATGATTGG  
CAAGTATTTCTACAAGAGGCGACCATTGGCCAACGGACTGGCCATGGCAGGCAGCCCTGTGTTTCTCTGTACTCT  
GGCCCCCTCAATCAGGTTTTCTTCGGTATCTTTGGATGGAGAGGAAGCTTTCTAATTCCTTGGGGGCTTGCTACT  
AAACTGCTGTGTTGCTGGAGCCCTCATGCGACCAATCGGGCCCCAAGCCAACCAAGGCAGGGAAAGATAAGTCTAA  
AGCATCCCTTGAGAAAGCTGGAAAATCTGGTGTGAAAAAAGATCTGCATGATGCAAATACAGATCTTATTGGAAG  
ACACCCTAAACAAGAGAAACGATCAGTCTTCCAAACAATTAATCAGTTCCTGGACTTAACCCTATTACCCACAG  
AGGCTTTTTGCTATACCTCTCTGGAAATGTGATCATGTTTTTGGACTCTTTCACCTTTGGTGTCTCTTAGTAG  
TTATGGGAAGAGTCAGCATTATTCTAGTGAGAAGTCTGCCTTCCTTCTTTCCATTCTGGCTTTTGTGACATGGT  
AGCCCGACCATCTATGGGACTTGTAGCCAACACAAAGCCAATAAGACCTCGAATTCAGTATTTCTTTGCGGCTTC  
CGTTGTTGCAAAATGGAGTGTGTCATATGCTAGCACCTTTATCCACTACCTATGTTGGATTCTGTGTCTATGCGGG  
ATTCTTTGGATTGCTTCGGGTGGCTCAGCTCCGTATTGTTTGAAACATTGATGGACCTTGTGAGCCCCAGAG  
GTTCTCCAGCGCTGTGGGATTGGTGACCATTGTGGAATGCTGTCTCTCTCGTCCCTGGGGCCACCACCTTTAGGTCTG  
GCTCAATGACATGTATGGAGACTACAAATACACATACTGGGCATGTGGCGTCGTCCTAATTATTTTCAAGGTATCTA  
TCTCTTCATTGGCATGGGCATCAATTATCGACTTTTGGCAAAAAGAACAGAAAGCAAACGAGCAGAAAAAGGAAAAG  
TAAAGAGGAAGAGACCAGTATAGATGTTGCTGGGAAGCCAAATGAAGTTACCAAAGCAGCAGAATCTCCGGACCA  
GAAAGACACAGAAGGAGGGCCCAAGGAGGAGGAAAGTCCAGTCTTGAATCCATGGGGCTGAAGGGTAAATTGAGCA  
GTTTCATGACCCAGGATATCTGAAAATATTCTACTGGCCTGTAATCTACCAGTGGTGTCTCAATGCAAATAGTAGAC  
ATTTGTGTGGAAATCATACCAGTTGTTTATTGATGGGATTTTGTGTTGACTCCTTACCAATAGCCTGAATTTGAG  
GAGGGAATGATTGGTAGCAAAGGATGGGGGAAAGAAGTAGGTTCTGTTTTGTTTTGTTTTAATCTTAGCTTTTAA  
TAGTGTCATAAAGATTATAATATGTGCCTTAAGTTTTAGTCTTTAGAACTCTAGAGAGCCTTAACCTTCTTAAACC  
ATTTTTGCTGAATTCATCTATTTTCGAGTGTGTGTTAAAAGGAAAAATAACAATACTTGTGTTGAGGCAAAATCT  
AAAATTTAAATTAATCTTGCTTCATTGTTTACATGTAATATATTTTCAGACATTTTCACTGGAAGATTTATGAACA  
GAAATATTGGTTGAAAGTTAGAGATTTTACAAAATGCTGACAAAAATATTTTCCCTAGCATCAGTAGATTTCTGGC  
ATATGTTTCTGCTAGCTATATATTTAGGAAATTCAAAGCATAAAACTTTGGCAACATCTTGGCTGTTCTAGACAC  
AGTGTACTTGTCAACCCCTCTCAGGTACCTTTTCTTGGGATGCTTATTAGAAGCCAAGTAAAGTGCTTAAGGTTT  
GTTTTTATTAAATAGCTATTTCTGCTCCCTGTTCAAAGATGCATTTTGAGTGTGTTATAGATCACTGCCCTTTT  
TGAAATCACCTGGTATTATTTTCTTACTGGAAAAGTTAGTATTAATACTACAGAACTACATATTTGTGCCTCC  
TTGGTAAATACAACACATCTAATTAAATGTAGACAGATATTTCAAACATCAGCTGAATTCACCTTAAGTTTTTCCA  
AAACCTCAGTTAAACTGTGAAGCTATTGGAATTTTTTTTTTCTTGGAAATTTTCCCCTTTGATTACAGTGGTCCC  
ATTTATATCTGCTTCTAGCTTAGTGCTATGTGTGAGATATGTGTGTGTTTGGTGTGTTTTGTTTTTTGTTTTTTT  
TTTTTTAAGGTTTGCAAATTAATAAGGGCCAGAAAAATTTGGCACCAGGCAAACGAATAAAGATAGGATTGGGAA  
AGAAGTTGCTAAGTGCTTAGTTTTAATAAGTAATTCCTTCTCTTTTTTTCAGAGAAGGCCTTACAGAAAAATGT  
TGTGCTTAGAATTGCTGGATGCATTTTACCCTCCACACAAACCTAAAAATTTTGTGACCCCTTTCACTTACCTG  
AAAAGTAGAGAAATGGATTCAAGTATAAGGATAAGGAGGGAAGGTGGACCAGAATGAAAAGTGAATATTTTTTT  
AACCTAATATCACTTAAATCGAGGCAGAAAGATATAGACATTCAATGAATTATATTCAATGCATTTAAATATACCA  
CTGTAATTGACAGAGTAAAGTATAGATACAAAACCTTGTGTAAGAGGCTGACTTTTCCAAATAAACATTTTTTA  
AGAAAACATTTCTTCTCCCAAATGTCTATTTTCTTGAGGAAAAATATTGCTGTGTCTTCAATTTTCAATACCAGGTT  
TCATTTTGGGCCCTTGCTAAATTGATTGAATTAATCTCCAGCTTTTGAACCTTGAAAAAAGGAAAAAAGG  
AAAAAAGGAAAAAAGAAAAAAGAAAAAAG

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**FIGURE 1528**

MPPAVGGPVGYTTPDGGWGWA VVIGAFISIGFSYAFPKSITVFFKEIEGIFHATTSEVSWISSIMLAVMYGGGP  
SSILVNKYGSRIVMIVGGCLSGCGLIAASFCNTVQQLYVCIGVIGGLGLAFNLNPALTMIGKYFYKRRPLANGLA  
MAGSPVFLCTLAPLNQVFFGIFGWRGSFLIILGGLLLNCCVAGALMRPIGPKPTKAGKDKSKASLEKAGKSGVKKD  
LHDANTDLIGRHPKQEKRSVFQTINQFLDLTLFTHRGFLLYLSGNVIMFFGLFAPLVFLSSYGKSQHYSSEKSAF  
LLSILAFVDMVARPSMGLVANTKPIRPRIQYFFAASVVANGVCHMLAPLSTTYVGFCVYAGFFGFAGWLSSVLF  
ETLMDLVGPQRFSSAVGLVTIVECCPVLLGPPLLGRLNDMYGDYKYTYWACGVVLIISGIYLFIMGINYRLLAK  
EQKANEQKESKEEETSIDVAGKPNEVTKAAESPDQKDTEGGPKEEESPV

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**FIGURE 1529A**

CGCCAGATGGCTGAGAGCTATCAAGGAAAACTCAGGACCATGATGGCTCAGTTTCCCACAGCTATGAATGGAGGG  
CCAAACATGTGGGCTATTACCTCTGAAGAACGTACTAAGCATGACAGGCAGTTTGATAACCTCAAACCTTCAGGA  
GGTTACATAACAGGTGATCAAGCACGTAATTTTTTCTACAATCAGGTCTGCCGGCCCCCTGTTTTAGCTGAAATA  
TGGGCTTTATCAGACCTAAACAAGGATGGGAAGATGGATCAGCAAGAGTTCTCCATAGCTATGAAACTCATCAA  
CTGAAGCTTCAAGGCCAACAGTTGCCTGTGGTTCTCCCTCCTATTATGAAGCAACCCCCCTATGTTTTCTCCATTA  
ATTTCTGCTCGTTTTGGAATGGGAAGCATGCCCAATCTGTCCATTCTCAGCCATTGCCTCCAGCTGCACCTATA  
ACATCATTGTCTTCTGCGACTTCAGGGACCAACCTTCTCCCTTAATGATGCCCACTCCCCTAGTGCCTTCTGTT  
AGCACATCATCATTACCAAATGGAACCGCCAGTCTCATTACGCCCTTTACCCATTCTTATTCTTCTTCAACATTG  
CCTCATGGGTTCATCTTATAGTCTGATGATGGGAGGATTTGGAGGTGCTAGTATACAGAAAGCGCAGTCTCTGATT  
GATTTAGGATCTAGTAGCTCAACTTCTCGACTGCTTCACTCTCAGGGAACCTCACCAAGACTGGGACCTCAGAG  
TGGGCAGTTCTCAGCCTACAAGATTAAAATATCGGCAAAAATTTAATACTCTTGACAAAAGTATGAGTGGATAT  
CTCTCAGGTTTTCAAGCTAGAAATGCCCTTCTTCAGTCAAATCTTTCTCAAACCTCAGCTGGCTACTATTTGGACT  
CTGGCTGACGTTGATGGTGATGGACAGCTAAAAGCAGAAGAGTTTATTCTTGCAATGCACCTTACTGACATGGCC  
AAAGCTGGACAGCCATTACCACTGACTTTACCTCCTGAGCTTGTTCTCCATCTTTAGAGGAGGAAAAGCAAATT  
GATTCCATTAATGGAACCTCTGCCTTCATATCAGAAAATGCAAGAAGAGGAGCCTCAGAAGAAATTACCAGTTACT  
TTTGAGGACAAACGGAAGCCAACTATGAGCGAGGGAACATGGAGCTGGAAAAGCGACGCCAAGCCTTGATGGAG  
CAGCAACAAAGGGAGGCAGAACGTAAAGCCCAGAAAGAAAAGGAAGAGTGGGAACGAAAACAGAGAGAATTACAA  
GAACAAGAATGGAAGAAACAACCTGAATTAGAAAAACGCTTAGAGAAGCAACGGGAATTGGAGAGACAACGAGAG  
GAAGAAAGGAGAAAAGACATAGAAAGACGAGAGGCAGCAAAACAGGAACCTGAACGACAACGTCGCTTAGAATGG  
GAGAGAATTCGGCGACAGGAGCTTCTCAATCAAAAAGAAATAGAGAACAAGAAGAAATTGTCAGGTTAAACTCTAAA  
AAGAAGAATCTTCATCTTGAGTTGGAAGCACTGAATGGCAAACATCAGCAGATCTCAGGCAGACTTCAGGATGTC  
CGACTCAAAAAGCAAACCTCAAAAGACTGAGCTGGAAGTTCTGGATAAGCAGTGTGACTTGGAATTTATGGAATC  
AAGCAACTTCAACAGGAACCTTCAGGAATATCAGAATAAGCTTATCTATCTGGTACCTGAGAAGCAATTATTAAT  
GAAAGAATTAAAAACATGCAGTTTCAGTAACACACCTGATTACAGGGGTGAGTTTACTTCATAAAAAATCATTAGAA  
AAGGAAGAATTATGCCAAAGACTTAAAGAACAGTTAGATGCTCTTGAAAAAGAAACTGCATCTAAGCTGTCAGAA  
ATGGATTCTTTTAAACAATCAACTAAAGGAACCTGAGAGAAACCTACAACACACAGCAGTTAGCCCTTGAACAGCTT  
TATAAGATCAAACGTGACAAGTTGAAGGAAATTGAAAGGAAAAGATTAGAATAATGCAGAAAAAGAACTAGAA  
GATGAGGCTGCAAGGAAAGCAAAGCAAGGAAAAAGAAACCTTATGGAAAGAAAATCTTAGAAAGGAGGAAGAAGAA  
AAACAAAAGCGACTCCAGGAAGAAAAACACAAGAAAAAATTCAAGAAGAGGAACGGAAAGCTGAGGAGAAACAA  
CGTAAGGATAAGGATACTTTGAAAGCTGAGGAGAAAAACGTGAGACAGCTAGTGTGTTTGGTGAATTATAGAGCA  
TTATACCCCTTTGAAAGCAAGGAACCATGATGAGATGAGTTTTAATTCTGGAGATATAATTCAGGTTGATGAAAA  
ACCGTAGGAGAACCTGGTTGGCTTTATGGTAGTTTTCAAGGAAATTTGGCTGGTTTCCATGCAATTATGTAGAA  
AAAATGCCATCAAGTGAAAATGAAAAAGCTGTATCTCAAAGAAGGCCTTACTTCTCCTACAGTTTCTTTATCT  
GCTACCTCAACTTCTCTGAACCACTTTCTTCAAATCAACCAGCATCAGTGACTGATTATCAAAATGTATCTTTT  
TCAAACCTAACTGTAAATACATCATGGCAGAAAAAATCAGCCTTCACTCGAACTGTGTCCCCTGGATCTGTATCA  
CCTATTCATGGACAGGGACAAGTGGTAGAAAACTTAAAGCACAGGCCCTTTGTTTCTGGACTGCAAGAAAGAT  
AACCACTTGAACCTTCTCAAAACATGACATTATTACTGTCTTGGAGCAGCAAGAAAATTGGTGGTTTGGGGAGGTG  
CATGGAGGAAGAGGATGGTTTCCCAAATCTTATGTCAAGATCATTCTGGGAGTGAAGTAAAACGGGAAGAACCA  
GAAGCTTTGTATGCAGCTGTAAATAAGAAACCTACCTCGGCAGCCTATTCAGTTGGAGAAGAATATATTGCACTT  
TATCCATATTCAAGTGTGGAACCTGGAGATTTGACTTTCACAGAAGGTGAAGAAATATTGGTGACCCAGAAAGAT  
GGAGAGTGGTGGACAGGAAGTATTGGAGATAGAAAGTGGAAATTTTTCCATCAAACCTATGTCAAACCAAAGGATCAA  
GAGAGTTTTGGGAGTGCTAGCAAGTCTGGAGCATCAAATAAAAAACCTGAGATTGCTCAGGTAACCTTCAGCATAT  
GTTGCTTCTGGTTCTGAACAACCTTAGCCTTGCAACAGGACAGTTAATATTAATTCTAAAGAAAAATACAAGTGGG  
TGGTGGCAAGGAGAGTTACAGGCCAGAGGAAAAAAGCGACAGAAAGGATGGTTTCTGCCAGTCATGTTAAACTT  
TTGGGTCCAAGTAGTGAAAGAGCCACACCTGCCTTTTCATCCTGTATGTGAGGTGATTGCTATGTATGACTATGCA  
GCAAATAATGAAGATGAGCTCAGTTTCTCCAAGGGACAACCTCATTAATGTTATGAACAAAGATGATCCTGATTGG  
TGGCAAGGAGAGATCAACGGGGTGACTGGTCTCTTTCTTCAAACCTACGTTAAGATGACGACAGACTCAGATCCA  
AGTCAACAGTGGTGTGCTGATCTGCAAACCTGGACACAATGCAGCCAATTGAGAGGAAAAGACAGGGCTATATT

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**FIGURE 1529B**

CATGAGCTGATTTCAGACCGAAGAGCGGTACATGGCTGACCTTCAGCTCGTCGTCGAGGTTTTTCAGAAAACGCATG  
GCAGAGTCAGGCTTTCTCACTGAAGGGGAGATGGCCCTGATTTTTGTAACTGGAAGGAGCTCATCATGTCCAAC  
ACAAAGCTGCTGAAGGCTTTGCGGGTGCGGAAGAAGACCGGGGGCGAGAAGATGCCGGTGCGAGATGATTGGGGAC  
ATCCTGGCCGCTGAGCTGTCCACATGCAGGCTTACATCAGGTTCTGCAGCTGCCAGCTTAATGGAGCAGCTCTG  
TTACAGCAGAAGACAGATGAAGACACAGATTTCAAAGAATTTTTAAAGAAGCTGGCATCTGACCCGCGGTGTAAA  
GGAATGCCCTCTCCAGCTTCCTGCTGAAACCCATGCAGAGGATCACCCGCTACCCACTGCTCATCAGAAGTATT  
CTGGAGAACACCCCGGAGAGCCATGCAGACCATTCTCCCTAAAGCTGGCCCTCGAGCGGGCAGAGGAGCTGTGC  
TCTCAAGTGAATGAGGGAGTTCGGGAGAAGGAAAACCTCGGACCGACTGGAGTGGATCCAGGCGCACGTGCAGTGT  
GAAGGCCTCGCGGAGCAACTTATTTTCAACTCTCTACCAACTGCCTGGGGCCCCGGAAGCTCTTACACAGTGGG  
AAATTATACAAGACCAAGAGCAACAAGGAAGTGCACGGATTCTCTTCAATGACTTCCTGCTTCTTACCTACATG  
GTCAAGCAGTTTGCTGTTTTCTCTGGCTCTGAGAACTTTTCAGCTCGAAGTCCAATGCTCAATTCAAAATGTAT  
AAAACGCCCATTTTCTGAATGAAGTCTTGGTGAAACTGCCACAGACCCTTCCAGCGATGAGCCTGTCTTCCAC  
ATTTCCACATTGATCGGGTCTACACCCTCCGAACAGACAACATTAATGAGAGGACCGCTGGGTGCAGAAGATC  
AAGGCGGCGTCTGAGCAGTACATCGACACCGAGAAGAAGCAGCGTGAGAAAGCTTACCAAGCCCGCTCCCAAAAG  
ACTTCAGGCATTGGGCGCCTGATGGTGCATGTCTTGAAGCTACAGAATTAAAAGCCTGCAAACCAAATGGAAAG  
AGCAACCCATACTGTGAAATCAGCATGGGCTCCAGAGCTACACCACCAGGACCATCCAGGACACACTCAATCCC  
AAGTGGAAATTTAACTGCCAGTTCTTTATTAAGGATCTCTACCAAGACGTGCTGTGTCTCACCTGTTTGACAGA  
GACCAGTTTTACCCAGATGATTTCTGGGTGCTACTGAAATTCAGTGGCAAAAATTCGAACAGAACAGGAAAGC  
AAAGGCCCTATGACCCGCCGACTGCTGCTGCATGAGGTCCCCACCGGGGAGGTCTGGGTCCGTTTTTGACCTGCAG  
CTTTTTGAGCAAAAACTCTCCTGTAGGGGTTCTAAAGGACAGCACCAGCGGGACAGCCCACAAGGCTGGGGCTG  
GAGAATGAGAGACTGCGCTCTCTTGGGGCTGAGGGAGCACCATGCAGCTTCACCCCTCACAAAGCCATGCACGCT  
GGGGGCTCTGTTTTCTGCACACTAAATAGCTAGCAATCTATGCAAACACCTTTCCCATAAAGAAACCAAACCCC  
ATAGTACAGTGCCTTGTCCTAGTGTTTACATGTTTACAGCTCTGTTTGTAGATGCCAAGGTTTCCATTTTCAGGG  
CTATAAAAAGTATTACTTGAAATGAGGCATCAGACCACCAGATGTTACCGCTCGGTTGAATGTGTCCACCGTGG  
AGTGGTTTGGTGACGCTGTAACCATTCCACGCCAGTGACCTCTGCTGGGTACAGCCACTCAGGAGGGGAAGGGT  
CAGGATGAGAGGCTGCAGCCTCGACACTTGGCGCGGCCTGATACTGAAATAGCGTCTACTCGTGCAGTGAATAAA  
AACAGAACTTGATCATTATTTATTCCTGATTAGATTTTATCACTCTCTGCTAAGACAATATAGTCTGGAGTATAAG  
TGGGAAAGCTTGATTTAAATACTGTGAACCTAATAATGTGGAAAATATTTTTCACTTTAATTTTCTGAAGTAT  
AAATTATTTATGTAAATTCATTGTTTTTGCATATTTCTTAGGACATGCATCTTTAAGCTTTATCATTGCCCATAT  
GTACAGAAAGAGAATAAAGACATATGTTTATGGATGAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1530**

MAESYQGKLRMTMAQFPTAMNGGPNMWAITSEERTKHDRQFDNLKPSGGYITGDQARNFFLQSGLPAPVLAETWA  
LSDLNKDGKMDQQEFSIAMKLIKLLQGGQLPVVLPPIMKQPPMFSP LISARFGMGSMPNLSIPQPLPPAAPITS  
LSSATSGTNLPPLMMPTPLVPSVSTSSLPNGTASLIQPLPIPYSSSTLPHGSSSYSLMMGGFGGASIQKAQSLIDL  
GSSSSTSSSTASLSGNSPKTGTSEWAVPQPTRLKYRQKFNTLDKSMGYLSGFQARNALLQSNLSQTQLATIWTLA  
DVDGDGQLKAEFILAMHLTDMAKAGQPLPLTLPPPELVPPSFRGGKQIDSINGTLPSYQKMQEEEPQKKLPVTFE  
DKRKANYERGNMELEKRRQALMEQQQREAEKAKQKEKEEWEWERKQRELQEQEWKKQLELEKRLKQRELERQREEE  
RRKDIERRAAKQELERQRRLEWERIRROELLNQNREQEEIVRLNSKKKNLHLELEALNGKHQQISGRQLQDVRL  
KKQTQKTELEVLDKQCDLEIMEIKQLQQELQEQYQNKLIYLVPEKQLLNERIKNMQFSNTPDSGVSLHKKSLKE  
ELCQRLKEQLDALEKETASKLSEMDSFNNQLKELRETYNTQQLALEQLYKIKRDKLKEIERKRLQELMQKKLEDE  
AARKAKQGKENLWKENLRKEEEEKQKRLQEEKTOEKIQEEERKAEKQKDKDTLKAEEKKRETASVLVNYRALY  
PFEARNHDEMSFNSGDIIQVDEKTVGEPGWLYGSFQGNFGWFP CNYVEKMPSSSENEKAVSPKKALLPPTVSLSAT  
STSSEPLSSNQPASVTDYQNVFSNLTVNTSWQKKSATRTVSPGSVSP IHGQGQVVENLKAQALCSWTAKKDNH  
LNFSKHDIIITVLEQQENWWFGEVHGGRGWFPKSYVKIIPGSEVKREEPEALYA AVNKKPTSAAYSVGEEYIALYP  
YSSVEPGDLTFTEGEEILVTQKDGEWWTGSIGDRSGIFPSNYVKPKDQESFGSASKSGASNKKPEIAQVTSAYVA  
SGSEQLSLAPGQLILILKKNTSGWWQGELOARGKKRQKGWFPASHVKLLGPSSERATPAFHPVCQVIAMYDYAAN  
NEDELSFSKGQLINVMNKDDPDWWQGEINGVTGLFPPSNYVKMTTDS DPSQQWCADLQTLDTMQPIERKRQGYIHE  
LIQTEERYMADLQLVVEVFQKRMAESGFLTEGEMALIFVNWKELIMSNTKLLKALVRKKTGGEKMPVQMIGDIL  
AAELSHMQAYIRFCSCQLNGAALLQKTD ETD FKEFLKKLASDPRCKGMPLSSFLLKPMQRITRYPLLRISILE  
NTPESHADHSSLKLALERAEEELCSQVNEGVR EKENS DRLEWIQAHVQCEGLAEQLIFNSLTNCLGPRKLLHSGKL  
YKTKSNKELHGFLFNDFLLLTVMVKQFAVSSGSEKLFSSKSNAQFKMYKTPIFLNEVLVKLPTDPSSDEPVEFHS  
HIDRVYTLRTDNINERTAWVQKIKAASEQYIDTEKKQREKAYQARSQKTSIGIGRLMVHVIEATELKACKPNGKSN  
PYCEISMGSQSYTTTRTIQDTLNPKNFNCQFFIKDLYQDVLCLTLFDRDQFSPDDFLGRTEIPVAKIRTEQESKG  
PMTRRLLLHEVPTGEVWVRFDLQLFEQKTL

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**FIGURE 1531**

CCTGTGAACACTATAGCGCTGAGAGAGACAGTCTGAAAGCAGAGGAAGACATCGATCAGTAACACCAAGAGACAC  
CAAAGTTGAAAGTTTTGTTTTCTTTCCCTCTGTTTTATTTTTCCCCCGTGTGTCCCTACTATGGTCAGAAAAGCCT  
GTTGTGTCCACCATCTCCAAAGGAGGTTACCTGCAGGGAAATGTTAACGGGAGGCTGCCTTCCCTGGGCAACAAG  
GAGCCACCTGGGCAGGAGAAAGTGCAGCTGAAGAGGAAAGTCACTTTACTGAGGGGAGTCTCCATTATCATTGGC  
ACCATCATTTGGAGCAGGAATCTTCATCTCTCCTAAGGGCGTGTCTCCAGAACACGGGCAGCGTGGGCATGTCTCTG  
ACCATCTGGACGGTGTGTGGGGTCCTGTCACTATTTGGAGCTTTGTCTTATGCTGAATTGGGAACAACATAAAAG  
AAATCTGGAGGTCATTACACATATATTTTGGAGTCTTTGGTCCATTACCAGCTTTTGTACGAGTCTGGGTGGAA  
CTCCTCATAATACGCCCTGCAGCTACTGCTGTGATATCCCTGGCATTGAGCTACATTCTGGAACCATTTTTT  
ATTCAATGTGAAATCCCTGAACTTGCATCAAGCTCATTACAGCTGTGGGCATAACTGTAGTGATGGTCTTAAAT  
AGCATGAGTGTGAGCTGGAGCGCCCGGATCCAGATTTTCTTAACCTTTTGCAAGCTCACAGCAATTCTGATAATT  
ATAGTCCCTGGAGTTATGCAGCTAATTAAAGGTCAAACGCAGAACTTTAAAGACGCCTTTTCAGGAAGAGATTCA  
AGTATTACGCGTTGCCACTGGCTTTTTATTATGGAATGTATGCATATGCTGGCTGGTTTTACCTCAACTTTGTT  
ACTGAAGAAGTAGAAAACCCTGAAAAAACCATTCCTTGCATATGTATATCCATGGCCATTGTCACCATTGGC  
TATGTGCTGACAAATGTGGCCTACTTTACGACCATTAATGCTGAGGAGCTGCTGCTTTCAAATGCAGTGGCAGTG  
ACCTTTTCTGAGCGGCTACTGGGAAATTTCTCATTAGCAGTTCGGATCTTTGTTGCCCTCTCCTGCTTTGGCTCC  
ATGAACGGTGGTGTGTTTGCTGTCTCCAGGTTATTCTATGTTGCGTCTCGAGAGGGTCACCTTCCAGAAATCCTC  
TCCATGATTTCATGTCCGCAAGCACACTCCTCTACCAGCTGTTATTGTTTTGCACCCTTTGACAATGATAATGCTC  
TTCTCTGGAGACCTCGACAGTCTTTTGAATTTCTCAGTTTTGCCAGGTGGCTTTTTATTGGGCTGGCAGTTGCT  
GGGCTGATTTATCTTCGATACAAATGCCAGATATGCATCGTCTTTCAAGGTGCCACTGTTTATCCCAGCTTTG  
TTTTCTTCACATGCCTCTTCATGGTTGCCCTTTCCCTCTATTTCGGACCCATTTAGTACAGGGATTGGCTTCGTC  
ATCACTCTGACTGGAGTCCCTGCGTATTATCTCTTTATTATATGGGACAAGAAACCCAGGTGGTTTTAGAATAATG  
TCAGGGTTCCTAGCACTGATGCCTGCACAAGCATGTGATATGTGAAATAAAATGGATTCTTCTATAGCTAAATGA  
GTTCCCTCTGGGAGAGTTCTGGTACTGCAATCACAATGCCAGATGGTGTGTTATGGGCTATTTGTGTAAAGTAAGT  
GGTAAGATGCTATGAAGTAAGTGTGTTTGTTCATCTTATGGAACTCTTGATGCATGTGCTTTTGTATGGAAT  
AAATTTTGGTGCAATATGATGTCATTCAACTTTGCATTGAATTGAATTTTGGTTGTATTTATATGTATTATACCT  
GTCACGCTTCTAGTTGCTTCAACCATTTTATAACCATTTTGTACATATTTTACTTGAAAATATTTTAAATGGAA  
ATTTAAATAAACATTTGATAGTTTACATAATAAAAAAAAAAAAAAAAAAAAAA